



FEE ISSUES PAPER
PRINCIPLES OF ASSURANCE:
FUNDAMENTAL THEORETICAL ISSUES
WITH RESPECT TO ASSURANCE IN
ASSURANCE ENGAGEMENTS

April 2003

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PREFACE

On 21 March 2003, the Council of FEE approved the publication of an Issues Paper “Principles of Assurance: Fundamental theoretical issues with respect to assurance in assurance engagements”. It sets out the results of a major 18 month research project performed by a sub-group of the FEE Auditing Working Party. It is unusual for FEE to publish this type of research work and for that reason an abridged version is also being made available to provide the reader with the main arguments developed in the full paper.

A proposed solution to the moderate level assurance problem

The original purpose of the FEE project was to make a contribution to the long-running efforts of the International Auditing Practices Committee (IAPC) to develop a general standard on assurance engagements. The IAPC Standard ISAE 100 established a distinction between high and moderate level assurance engagements but did not provide any standards for moderate level engagements. However, progress in this area was thought to be urgently needed if the auditing profession was to make an effective contribution to emerging issues such as sustainability reporting.

The FEE Issues Paper concludes that standard setters should reject the distinction between high and moderate level assurance. International Standards on Auditing (ISAs) are already based on the concept of “reasonable assurance” and it is argued that this concept should be the basis for all assurance standards. Where auditors or assurance providers limit the assurance they obtain, the nature of the relevant limitations should be clearly understood and communicated. They should also try to ensure that users understand that what constitutes reasonable assurance depends on the context and the subject matter involved.

The International Auditing and Assurance Standards Board (IAASB), which succeeded the IAPC, appears to have reached similar conclusions at its meeting in the week of 17 March 2003, when it agreed to issue new exposure drafts on assurance engagements.

Implications of the FEE Issues Paper

As well as providing a way forward in relation to sustainability and other areas of reporting outside financial statements, the ideas in the FEE Issues Paper are also relevant to other current policy issues related to the audit expectations gap and standards of professional scepticism. In particular, it challenges those who might place misguided demands on auditors to provide “unreasonable assurance” in relation to fraud.

More significantly, the development of the Issues Paper shows how fundamental analysis can help provide potential solutions to practical auditing and assurance issues and demonstrates the potential benefits to the IAASB of developing a conceptual framework. Accounting standard setters, including the International Accounting Standards Board, have long made use of such frameworks and FEE continues to encourage the IAASB to do the same.

The Issues Paper does not present a complete conceptual framework but it does indicate what such a framework might look like and therefore it will be a primary source of ideas for FEE as it develops its responses to policy issues in auditing and assurance and seeks to meet public expectations that:

- International Standards on Auditing to be adopted in the EU should be principle-based;
- IAASB standard setting should be responsive to change, efficient and transparent; and
- Communications by auditors should be clear and not perpetuate expectations gap issues.

It is also expected that FEE will draw on the thinking in the Issues Paper in preparing its responses to IAASB consultations and in developing its positions in other areas of work such as sustainability and capital markets reporting.

Finally, on behalf of the FEE Council, I would like to express our gratitude to the sub-group responsible for the work and, in particular, to the Institut der Wirtschaftsprüfer in Deutschland for its major contribution to this project.

David Devlin
FEE President
22 April 2003

ABSTRACT

Background and Objective

The lack of a general consensus in the International Auditing Practices Committee (IAPC), which was succeeded by the International Auditing and Assurance Standards Board, or IAASB, for the issuance of a standard for moderate assurance engagements hinders the development of further standards and guidance for assurance engagements in relation to subject matter other than historical financial statements. Although the IAASB issued a Study in 2002 entitled “The Determination and Communication of Levels of Assurance Other Than High” that deals with a number of the issues involved, continuing debate about many of these issues indicates that further investigation of the conceptual issues is warranted.

The primary purpose of this FEE Issues Paper “Principles of Assurance: Fundamental Theoretical Issues with Respect to Assurance in Assurance Engagements” is to identify and examine, and discuss possible solutions to, significant theoretical issues associated with the determination of assurance in assurance engagements. The Paper serves as a basis for a review of the major theoretical issues underlying the determination of levels of assurance, and hence for FEE deliberations of future exposure drafts of IAASB pronouncements in this area, and seeks to contribute to the basis for future academic research in the area of assurance engagements. Moreover, this Paper also seeks to demonstrate to regulatory authorities, such as the EU Commission, the efforts by the European profession to establish a firm theoretical foundation for the development of useful standards and guidance in this area.

Specific Major Conclusions of the Paper

Assurance Engagements

- The primary distinguishing characteristic of assurance engagements is the issuance of an overall conclusion or opinion by the practitioner with a certain level of assurance about particular assertions with respect to subject matter using identified criteria based upon evidence obtained in an engagement process.
- Differentiating between direct and indirect engagements is not as useful as differentiating between engagements in which the practitioner measures the subject matter directly as opposed to engagements in which the practitioner examines measurements undertaken by the responsible party.

Levels of Assurance

- The appropriate assurance perspective for assurance standards to take is that of the assurance obtained by the practitioner.
- High and moderate assurance represent mutually exclusive terms across engagement types and the terms high and moderate assurance reflect absolute rather than relative notions.
- The term reasonable assurance appears to represent a relative term whose content depends upon the circumstances.

- Reasonable assurance varies not only across different subject matter, criteria, evidence, and engagement processes, but also across jurisdictional boundaries and within jurisdictions over time.
- The term “limited assurance” appears to be associated with engagements in which the decision was taken to obtain less assurance than otherwise could have been reasonable to obtain.

Suitability of the Elements of an Assurance Engagement

- A synthesis of ethical considerations, information or communications theory and measurement theory appears to provide the appropriate tools with which to analyse the suitability of assertions (which are information) generated by an engagement; this context leads to the application of the concept of “validity” and a redefinition and distinction of the concepts “reliability” and “credibility”.
- Subject matter cannot be measured directly; a practitioner measures the indicants of properties possessed by subject matter and uses the manifested outcomes of these measurements to determine whether the subject matter possesses those properties and manifestations thereof predicated by those properties essential to being a member of a particular class of subject matter.
- In essence, assurance engagements represent property ascription and hence a classification exercise.
- Subject matter is deemed to be suitable when the application of given criteria to that subject matter generate suitable assertions; such assertions are suitable if they are both valuable to users and satisfy applicable ethical requirements.
- Criteria are deemed to be suitable when their application with respect to specific given subject matter generates suitable assertions; one cannot speak of the suitability of criteria or of subject matter in isolation.
- Evidence is a form of information, generated by the application of the criteria on the subject matter, that contributes to the confirmation or refutation of assertions about events and circumstances in connection with that subject matter; there are different evidence concepts that can be applied in determining the nature of evidence.
- The evidence required in an engagement and hence the nature of an engagement depends upon the acceptable presumptions that a practitioner may entertain in performing the engagement; ultimately, the reasonableness of making these presumptions is determined by their acceptance by engagement stakeholders and by practitioner capabilities.
- An assurance engagement is an information system that conveys information from the practitioner to users; the engagement process is a part of this system.
- A suitable engagement process is predicated upon suitable engagement management and a suitable engagement system and environment.

- The primary focus of those who set standards for assurance engagements ought to be the development of the required elements for a suitable engagement system for given environments and the development of standards and guidance for suitable engagement processes in this context.
- The suitability of the assertions, generated by the application of the criteria to the subject matter and leading to the acquisition of evidence in the engagement process to support those assertions with a certain level of assurance, is a continuum, where the required threshold level for a particular engagement is determined by circumstances of the engagement in light of user needs.

General and Reporting Conclusions

- High and moderate assurance do not appear to represent useful concepts for assurance engagements in which practitioners are required to exercise considerable professional judgement.
- Assurance engagements ought to be categorised into those leading to the acquisition of reasonable assurance and those leading to the acquisition of limited assurance.
- A systematic analysis of reporting requirements for assurance engagements needs to be performed by both academics and standard setters.

The primary overall conclusions of this Paper are:

1. that considerable academic research needs to be done for assurance engagements, which suggests that cooperation between standard setters and academics needs to be improved; and
2. the accounting profession in Europe and worldwide and standard setters need to undertake renewed efforts to develop and agree a conceptual framework for assurance engagements that will serve as a foundation for future standard setting and guidance in this area.

FEE ISSUES PAPER

PRINCIPLES OF ASSURANCE:

FUNDAMENTAL THEORETICAL ISSUES WITH RESPECT TO ASSURANCE IN ASSURANCE ENGAGEMENTS

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1. BACKGROUND

- (1) The International Auditing Practices Committee, or “IAPC”, (succeeded by the International Auditing and Assurance Standards Board, or “IAASB”) started a project in late 1993 that led to the issuance of ISA 100 “Assurance Engagements” in June 2000. Nevertheless, at that time the IAPC recognised that ISA 100 was incomplete due to the lack of guidance on so-called moderate assurance engagements. The lack of a consensus for the issuance of a standard in this area hinders the development of further standards and guidance for assurance engagements in relation to subject matter other than historical financial statements. Although the IAASB issued a Study in 2002 entitled “The Determination and Communication of Levels of Assurance Other Than High” that deals with a number of the issues involved, continuing debate about many of these issues indicates that further investigation of the conceptual issues is warranted.

2. OBJECTIVES AND SCOPE OF THIS FEE ISSUES PAPER

- (2) The primary purpose of this FEE Issues Paper “Principles of Assurance: Fundamental Theoretical Issues with Respect to Assurance in Assurance Engagements” is to identify and examine, and discuss possible solutions to, the significant theoretical issues associated with the determination of assurance in assurance engagements – but by no means in a conclusive manner. ***This Paper is an abridged version of the original Paper: readers wishing to obtain a more thorough treatment of the issues supporting the conclusions in this abridged version are directed towards the unabridged version of the Paper.*** Consequently, the Paper serves as a basis for a review of the major theoretical issues underlying the determination of levels of assurance, and hence for FEE deliberations on future exposure drafts of IAASB pronouncements in this area. The FEE Paper will in part build upon the results of the IAASB Study and propose a number of recommendations to the IAASB.
- (3) Further objectives of the Issues Paper include the identification and examination of a limited number of additional critical related issues within ISA 100 and to contribute to the basis for future academic research in the area of assurance engagements. Moreover, this Paper also seeks to demonstrate to regulatory authorities, such as the EU Commission, the efforts by the European profession to establish a firm theoretical foundation for the development of useful standards and guidance in this area that reflect the public interest.
- (4) The unabridged version of the Paper contains the detailed analysis underlying the conclusions expressed in this summary. There are three levels of analysis that need to be considered with respect to proposed or existing standards:
 1. Theoretical consistency (does it make logical sense?)
 2. Practicality (can it be done in practice from a technical point of view?)
 3. Political feasibility (will it be approved?).

The Paper addresses all three levels, but in the first instance focuses upon theoretical consistency before considering practical or political constraints.

- (5) While this Paper may contain many thoughts and analyses that might be original, it is not meant to be a treatise on the individual issues, nor does it purport to be a complete and consistent treatment of the issues addressed. Rather, it represents an attempt to identify some of the issues involved and to derive proposals for possible solutions based on

analyses presented in the discussion. The unabridged version of the Paper does not refer to primary sources in all cases, but builds on work already done in certain areas by referring to secondary sources. It is hoped, however, that the Paper will prompt additional empirical and theoretical academic research on the issues identified as well as influence standard setting in this area.

- (6) The scope of this Paper is confined to issues in relation to standards on audits of financial statements and other assurance and attestation engagements – it does not address issues in relation to codes of ethics. Hence, this Paper generally does not cover ethics or independence issues, which, while important, go beyond of the scope of the fundamental issues being addressed. However, independence or other ethical issues are mentioned where these arise.
- (7) Since International Standards on Auditing, including ISA 100 “Assurance Engagements”, are written in English, the analysis of the nomenclature used to describe different concepts is limited to those English terms and is performed in an Anglo-Saxon context. Readers from jurisdictions whose official languages are not English are cautioned that attempts to directly translate these terms (e.g., “reasonable”, “limited assurance” etc.) into other languages are often associated with shifts in meaning that do not do justice to the meaning of the terms in English.

3. THE TOOLS APPLIED IN THE PAPER TO ANALYSE THE ISSUES

- (8) The unabridged version of the FEE Issues Paper begins by reviewing the tools that applied in analysing assurance in assurance engagements. In particular, logic (especially classical logic) is a primary tool for the analysis of the issues involved. Furthermore, microeconomics (particularly information economics, including decision theory and components thereof, such as game theory and agency theory) should form the basis for the determination of the objectives of assurance engagements and hence assurance. The analyses of the elements of assurance engagements (subject matter, criteria, etc.) is performed by applying measurement theory (and metaphysical argument and epistemology, where relevant), information theory, and to the extent relevant, the qualitative characteristics of accounting information in accounting theory.
- (9) To the extent that auditing and assurance theory offer tools for these analyses, these should be applied, but it should be recognised that, given the continuing debate in these areas, in their current state these theories are unlikely to provide the solutions needed. Because assurance engagements are not performed in a legal vacuum, the effects of legal frameworks on the performance of, on the standard setting for and on the development of concepts for such engagements, need to be examined briefly where relevant.

3.A. *The Economic Basis for Assurance vs. Other Engagements*

- (10) The existence of assurance engagements as defined below (paragraphs 10 to 16) begs the question as to why these are carried out rather than other engagements. While there may be a number of factors involved, the underlying factor appears to be economic. Assurance rather than other engagements are performed in certain circumstances because users are willing to pay or exert political or economic pressure to have responsible parties pay for the risk reduction associated with the issuance of an overall professional opinion by the practitioner on the conformity of the subject matter with the identified suitable criteria.

4. PRACTITIONERS' ASSOCIATION WITH SUBJECT MATTER

4.A. Types of Subject Matter

- (11) There are a number of different types of subject matter with which a professional accountant may become associated, and there is a fundamental dichotomy between information or data and other kinds of subject matter. This dichotomy becomes important in the subsequent analysis of the nature of subject matter. Subsequent analysis in the Paper focuses on the association of practitioners with subject matter due to their provision of services as part of a professional engagement (as opposed to other kinds of association, such as commercial engagements not involving professional judgement).

4.B. Types of Professional Engagements

- (12) This Paper identifies three kinds of professional engagements (termed “advice or consulting”, “construction” and “attestation”), with some engagements representing a combination of these. However, such combinations do not affect the nature of the engagement type within the combined engagement – that is, if an attestation engagement is embedded within a consulting engagement, this does not change the attestation engagement component to a consulting engagement. Consequently, the attestation engagement within the consulting engagement remains subject to standards for attestation engagements in these circumstances. There may be legal or professional requirements in some jurisdictions limiting or prohibiting the combination of certain kinds of engagements (e.g., the preparation and audit of financial statements).
- (13) The identification of three different kinds of professional engagements is predicated upon distinguishing them from one another. The key differences between the three types of engagements are subtle. Consulting or advisory engagements may include the provision of a report containing the identification of issues and their analysis and conclusions, professional opinions and recommendations with respect to the issues in relation to the subject matter. However, an advisory or consulting engagement is neither primarily directed towards the performance of procedures on the subject matter to gain evidence to support findings, nor reporting the findings resulting from the evidence derived from those procedures. Hence in a purely advisory or consulting engagement (e.g., tax advice) the practitioner provides professional advice in relation to subject matter and may provide recommendations about alternative courses of action, but is neither engaged in constructive activities in relation to, nor the provision of an evidence-based attestation report on, the subject matter.
- (14) In a constructive engagement the practitioner needs to apply due care in the performance of the engagement. The engagement implicitly includes an opinion towards the recipient of the construction that what the practitioner has constructed meets the terms of engagement. However, the emphasis in this case is on satisfying the terms of engagement through the construction rather than on the provision of an opinion about the construction. Hence, in a constructive engagement the practitioner designs, constructs or implements the subject matter or executes the operations thereof (e.g., design or construction of IT configurations, implementation of an accounting system, the execution of bookkeeping functions, preparation or compilation of financial statements).

- (15) In contrast, in an attestation engagement, the issuance of the report itself is the objective and hence an expression of the engagement performed. In an attestation engagement the practitioner is engaged to issue a report of findings in relation to the subject matter based on the evidence obtained from procedures performed in relation to that subject matter. Attestation engagements can be categorised as either assurance or agreed-upon procedures engagements. Assurance engagements can be distinguished from agreed-upon procedures engagements in that assurance engagements involve the issuance of a report that includes the expression of an opinion or conclusion with a certain level of assurance on the conformity of the subject matter with identified suitable criteria. Agreed-upon procedures engagements, on the other hand, contain only findings in relation to the subject matter based on procedures that the practitioner has performed on that subject matter without the expression of such an opinion or conclusion.

4.C. Direct vs. Indirect Engagements

- (16) Another angle from which assurance engagements can be categorised is whether they are direct or indirect (“attest”) engagements. In a direct engagement the practitioner expresses a conclusion or opinion directly on subject matter based upon a direct evaluation of the subject matter against suitable criteria, irrespective of whether the responsible party has made a written assertion in relation to the subject matter. In an indirect engagement, the practitioner expresses a conclusion or opinion on the reliability of or that enhances the credibility of a written assertion by the responsible party in relation to the subject matter. This distinction is in fact arbitrary and hence not useful in categorising assurance engagements because the application of the criteria to the subject matter essentially generates the assertions (whether explicit or implicit).
- (17) This Paper recommends that standard setters review and perhaps reconsider their division of assurance engagements into direct and indirect (attest) engagements, and consider the use of a categorisation based on measurement vs. remeasurement for the following reasons. From a practitioner’s point of view, there is fundamentally no difference between an engagement in which the responsible party has made an explicit assertion without having undertaken the measurement to support that assertion, and an engagement in which the responsible party has performed no measurements and made no explicit assertions. Both of these engagements are, however, substantially different from those engagements in which the practitioner examines whether the measurements by the responsible party actually support the assertions (whether explicit or implicit).
- (18) However, it should be recognised that engagements involving direct measurement rather than remeasurement may be associated with self-review problems. As noted, such independence considerations are not within the scope of this Paper.

5. THE EXISTENCE AND NATURE OF LEVELS OF ASSURANCE

5.A. *The Nature of Assurance*

- (19) Since assurance in relation to the performance of assurance engagements is an artificial concept developed by accountants to help describe the nature of the engagements being performed, the nature of assurance can only be determined by reference to its purpose within the context of assurance engagements. Overall, assurance appears to be related to the provision of confidence, certainty and security with respect to something to someone. There appears to be three different perspectives of assurance: that obtained by the practitioner, that expressed in the practitioner's report and that attributed by the user. The existence of the so-called expectations gap suggests that these three perspectives are not the same.
- (20) Auditing literature has divided the expectations gap into the performance gap (resulting from either deficient performance or deficient standards) and the reasonableness gap resulting from unreasonable user expectations. While current literature has recognised that these gaps change over time, it does not yet appear to have been recognised that the component gaps could, in certain circumstances, invert. For example, legal requirements or professional standards could be set that require auditors to perform to a standard that goes beyond what can reasonably be expected of an audit (e.g., a requirement to audit unauditably subject matter or apply criteria that are not suitable for the engagement).
- (21) However, individual practitioners are not necessarily in a position to ascertain or determine the assurance attributed by users to a practitioner's report, and professional standards determine the assurance expressed in a practitioner's report. Consequently, this Paper recommends that the assurance obtained by the practitioner in the course of the engagement be used as the basis for analysis of assurance in the Paper and for standard setting generally. In this context, as a matter of nomenclature, the term credibility ought to be restricted to the assurance attributed by the user.
- (22) Given that under the economic basis for assurance engagements noted above, the purpose of assurance engagements is risk reduction from the point of view of the user, but the assurance perspective taken is the assurance obtained by the practitioner, the assurance obtained by the practitioner appears to be related to the practitioner's exercise of risk reduction in the performance of the engagement. Standard setters have generally not taken a consistent approach in defining the assurance perspective (whether user, report or practitioner) – in fact, some individual standard setters have been inconsistent between or even within standards that they have issued. There does not appear to be a consistent approach to defining the assurance perspective in academic literature addressing assurance or auditing engagements either.
- (23) Standard setters have generally not taken a consistent approach to defining engagement or audit risk. In applying a Bayesian perspective, some include only the risk of incorrect acceptance, whereas others include the risk of incorrect rejection. Some standard setters have not been consistent in this matter between or even within standards that they have issued. While there is some academic support for the inclusion of the risk of incorrect rejection in the definition of audit or engagement risk, this support does not appear to represent the majority view at the present time and does not yet appear to have been systematically and thoroughly developed as a concept.

- (24) Standard setters appear to recognise that there is some kind of connection between audit or engagement risk and assurance, and in some cases even recognise a tenuous inverse relationship between them, but appear to be hesitant about directly linking the two concepts. With few exceptions, academic literature, on the other hand, appears to recognise a direct inverse relationship between audit or engagement risk and assurance, whereby assurance represents the mathematical complement of a Bayesian expression of risk (i.e., assurance = 100 % minus risk).
- (25) Academic literature – particularly in the legal profession – has begun the process of refining the understanding of uncertainty in the context of assurance by adding elements of so-called Baconian probabilities (ordinal probability scales expressed in narrative terms that stress the importance of eliminative and variative inductive methods by means of which evidential tests are used not to support but to eliminate alternative hypotheses) and vagueness (i.e., indeterminate concepts leading to degrees of truth rather than a truth-false dichotomy due to so-called “fuzzy” logic or subject matter), which challenge a traditional Bayesian risk perspective. At this stage, academics do not appear to have investigated how or whether so-called Taleb distributions (which have the property that many small profits are mixed with occasional large losses) may influence auditor behaviour with respect to risk. Furthermore, academics have begun to question whether engagement risk is separable from the uncertainties associated with the subject matter or criteria of the engagement.
- (26) Overall, given general academic support for the exclusion of the risk of incorrect rejection from the definition of audit or engagement risk and the direct mathematical linkage that most academics appear to make between assurance and risk, this Paper works with a Bayesian definition of engagement risk that encompasses only the risk of incorrect acceptance and is the mathematical complement (i.e., is inversely related) to assurance. Furthermore, because the inseparability of engagement risk from the uncertainty associated with the subject matter or criteria has not yet become a part of orthodox audit theory, this Paper assumes that engagement risk is separable unless the issue of separability directly affects the analysis at hand.
- (27) The issues involving separability and the inclusion of the risk of incorrect rejection require further academic research. The other concepts addressed by academics (Baconian probabilities, vagueness and Taleb distributions) have not yet been investigated systematically enough in an assurance engagement context so that their implications for such engagements can be determined. Hence, this Paper does not address these issues in subsequent analyses, but recognises that further academic research in these areas is needed.
- (28) By applying nonparametric mathematical methods to a Bayesian definition of risk and assurance, assurance is fundamentally a quantitative concept (“levels of assurance”). Such a Bayesian portrayal of risk and hence assurance is a useful tool to determine the fundamental nature of assurance. However, because practitioners are unable to assign specific numerical values to the assurance obtained in an assurance engagement in practice, in standard setting a combination of nonparametric mathematical methods and narrative definitions are required to describe the relationship between different levels of assurance.
- (29) Hence, in a risk-based concept of assurance, assurance can be described as a continuum ranging from 0 % (the natural minimum) to 100 % (the natural maximum) with a natural mid-point (50 %). Given the inability of practitioners to assign specific numerical values to the assurance obtained, an ordinal scale of assurance with narrative descriptions (e.g.,

“high”, “moderate” and “low”) can be applied. The most useful perspective to define the nature of this kind of ordinal scale is that these different levels of assurance are exclusive (do not overlap), absolute (i.e., are not relative) and obey the rule of transitivity (if high is greater than moderate and moderate is greater than low, then high must be greater than low) – both within certain types of engagements across different specific engagements and across different types of engagements.

5.B. Reasonable vs. High Assurance

- (30) The previous discussion about the relative meaning of terms used to describe an ordinal scale of assurance (“high”, “moderate” and “low”) begs the question as to the meaning of “reasonable assurance” in this context. A review of the dictionary and legal views of the meaning of the term “reasonable” suggests that “reasonable” is a relative term whose level depends upon the circumstances or the end in view. The following represents an abridged analysis of the description of the meaning “reasonable” and “high assurance” – both by standards setters and in a legal context – both at an international level (in the ISA and the IAASB Study) and in the major common law jurisdictions that have had the most effect on the contents of ISA 100 (the U.S., Canada and the U.K.).
- (31) A review of the meaning of “reasonable” and “high” assurance in these contexts indicates that while standard setters have not always been consistent in their use of these terms (both among standard setters, and, in some cases, between standards issued by individual standards setters), generally the term “reasonable assurance” appears to be associated is a relative concept based upon what is reasonable in a particular set of circumstances. This view appears to be supported by the view of the courts in the major common law jurisdictions. In contrast, unless it is defined in terms of reasonability, the term “high assurance” reflects an absolute concept that does not vary with the circumstances.
- (32) The review of the meaning of “reasonable” and “high” assurance in these contexts also indicates that the claim made in ISA 100, that in certain circumstances “absolute” assurance is attainable, appears to be spurious since professional accountants are not in a position to completely eliminate the possibility of error – even where that possibility is exceedingly low.
- (33) The concepts of reasonable and high assurance in relation to the legal concept of “beyond any reasonable doubt” and the expression “virtual certainty” also need to be examined. It appears that the criminal courts seek a greater quantity and quality (credible and reliable) of evidence in a much more stringent evaluation process of past events than is generally obtained for a financial statement audit. Compared to criminal legal processes, in audits of financial statements a decreased likelihood of an inappropriate unqualified opinion – both due to a lower level of assurance and less precision – is sacrificed for timeliness, so that the financial statements can be provided to users in audited form before they lose their relevance to those users.
- (34) Furthermore, in a Bayesian context high assurance appears to represent a level of assurance that is less than that represented by virtual certainty and beyond any reasonable doubt. Hence, in a Bayesian context, beyond any reasonable doubt appears to represent a level of assurance that exceeds that which is termed as “high”, but falls short of virtual certainty. Furthermore, beyond any reasonable doubt appears to represent an absolute concept in that, regardless of the circumstances of the case, the level of assurance below which a person cannot be convicted is at a very high level.

- (35) There are also differences between the criminal courts and audits of financial statements associated with the presumptions made and the onus or burden of proof. While, under the presumption of innocence, the courts need conclusive evidence to overturn that presumption to find someone guilty of a crime beyond any reasonable doubt, auditing standards appear to claim a more neutral stance with respect to management's honesty, which eases the burden of obtaining evidence to support the opinion that the financial statements are not materially misstated. Nevertheless, from a logical point of view, the burden of persuasion that the financial statements are not materially misstated ought to be borne by management, which is responsible for their preparation, rather than by the auditor. However, this does not relieve the auditor from the burden of persuasion that sufficient appropriate audit evidence was obtained to support the audit opinion.
- (36) Furthermore, whether or not explicitly stated in the auditing standards, in the major common law jurisdictions auditors appear to be able to rely on management's good faith to some extent with respect to fraud, since, in the absence of evidence to the contrary, auditors may generally presume that accounting records and documentation are genuine. This reliance, however, is limited by the results of the analysis of fraud risk factors and of any audit procedures performed during the course of the audit, and the attitude of professional scepticism, by means of which the auditor remains alert to evidence contrary to this presumption. This reinforces the previous conclusion that, unless there are exceptional circumstances, it appears that reasonable assurance in an audit of financial statements would ordinarily be construed as representing a level of assurance lower than beyond any reasonable doubt.
- (37) The fact that auditors are ordinarily required to obtain only reasonable assurance to support their audit opinion, rather than to meet a criminal standard of proof so that they believe beyond any reasonable doubt that the financial statements are not materially misstated, implies that auditors are ordinarily able to issue their audit report with an unqualified opinion even when they may still retain some reasonable doubt. This means that auditors are generally not required to dispel every reasonable doubt that the financial statements are not materially misstated.
- (38) An examination of the terms "probable", "more likely than not", the "preponderance of the evidence", "clear and convincing evidence", "persuasive" and "conclusive" suggests that in many cases auditors are only in a position to obtain persuasive evidence that more closely reflects the standard of proof required by the common law courts in civil cases ("the preponderance of the evidence") rather than "conclusive" or "clear and convincing evidence". The latter represents a lower standard than beyond any reasonable doubt, but higher than the preponderance of the evidence. Consequently, the concept of reasonable assurance appears to extend from "beyond any reasonable doubt" to "preponderance of the evidence" based upon the circumstances in a particular context.
- (39) From a Bayesian perspective, the concept of reasonable assurance applies to situations in which the level of certainty is just probable or more likely than not, which can be considered equivalent to the legal concept of preponderance of the evidence. High assurance, on the other hand, which represents a level of assurance less than beyond any reasonable doubt but greater than just more likely than not, appears to be equivalent to the legal concept of clear and convincing evidence, or, from a Bayesian perspective, highly probable.

- (40) Since audit evidence need only be persuasive rather than conclusive or convincing to obtain reasonable assurance, in certain circumstances, auditors are in a position to issue unqualified audit opinions even for cases in which there is more than just reasonable doubt that the financial statements are not materially misstated. This is primarily due to the limitations of audit evidence caused by the nature of the criteria applied (the accounting frameworks), which suggests that engagement risk is not separable from the uncertainties associated with the application of the criteria to the subject matter.

5.C. Moderate Assurance vs. High and Reasonable Assurance



- (41) Moderate assurance generally appears to be associated with a level of assurance that is less than high but greater than low. An investigation of the definition of moderate assurance in the ISA and national auditing and assurance or attestation standards suggests that standard setters in the major common law jurisdictions appear to have taken a procedural approach to delineate moderate from high assurance. The IAASB concurs for reviews of financial statements, but could not come to an agreement on whether this is appropriate for other moderate assurance engagements. With respect to other matters (such as engagement risk, assurance perspective, the meaning of the terminology applied, and absolute vs. relative concepts of moderate assurance) there does not appear to be consensus among these standard setters – indeed, it appears that the standard setters themselves had difficulty in reaching internally consistent positions on these matters.
- (42) It is interesting to note that none of the standard setters addresses professional scepticism or the presumptions of the practitioner with respect to management, even though these may be as relevant to reviews and moderate assurance engagements as to audits and high assurance engagements. Furthermore, practitioners tend to view moderate assurance as representing an absolute concept that is clearly below high and tends not to fall below 50 %, the balance of the probabilities.
- (43) Consequently, based on this and the definitions and usage of these terms, “probable”, “more likely than not”, and the “preponderance of the evidence” appear to represent absolute concepts that fall within the range of the moderate assurance concept. The same appears to apply to the term “plausible”. The term “limited assurance”, on the other hand, appears to be associated with the intentional limitation of the assurance obtained by means of a reduction in work effort that would have otherwise been necessary to obtain more (i.e., “reasonable”) assurance.

5.D. The Implications for Concepts Associated with Levels of Assurance

- (44) The previous discussion leads to the question as to what determines whether reasonable assurance has been obtained. It appears that the level of assurance that would be construed as being reasonable depends upon the specific circumstances of the engagement – i.e., the subject matter, criteria, engagement process and evidence involved in the engagement. This implies that what is reasonable assurance for one engagement or type of engagement, may not be so for another. The courts are likely to regard a higher level of assurance as being reasonable for circumstances in which high quality evidence is readily available compared to those circumstances in which it is not. It is also conceivable that if superior processes are readily available, the courts may view the level of assurance obtained by means of an inferior process leading to less assurance as not reasonable in the circumstances.

- (45) However, in those cases where standards or regulatory requirements do not stipulate otherwise, practitioners could scope out assertions so that it is possible to obtain a higher level of assurance than might otherwise be the case. The risk associated with the removal of assertions from the scope of an engagement is, the more assertions that are removed from the scope, the less likely the remaining scope of the engagement is still meaningful to users. In certain jurisdictions, the courts may limit the degree to which assertions may be scoped out of engagements not required by statute or regulation.
- (46) In any case, practitioners cannot afford to ignore court decisions on the basis for their liability in professional practice. Since courts in local jurisdictions ultimately determine auditor liability based upon that court's interpretation of reasonability, reasonable assurance will vary among jurisdictions. Furthermore, while international standards will substantially harmonise audit and assurance engagement practice in conjunction with international firm practice, local courts are able to and do reach decisions at variance with these standards and practices. Consequently, until national legal systems have been harmonised, there will be non-statutory and non-regulatory legal limitations on the degree of harmonisation that international auditing or assurance standards can accomplish. For this reason, countries with a long history of well-developed legal systems have tended to implement the ISA or incorporate them into their standard setting processes rather than to adopt them directly.
- (47) In conclusion, while there are different levels of assurance that can be described in different ways, it is useful to attempt to summarise in a diagram the relationship between these different levels and their descriptions so as to clarify these relationships.

Diagram I

Level of certainty (lower bound)	legal standard of proof	Level of assurance	
		(absolute scale)	(relative scale)
absolute certainty (100 %)	no doubt	absolute	“unreasonable” assurance in all circumstances
virtual certainty	remote possibility of doubt	extremely high	 reasonable assurance 
	beyond any reasonable doubt	very high	
highly probable	clear and convincing evidence (reasonable doubt)	high	
probable	preponderance of the evidence (considerable doubt)	moderate	
more likely than not (> 50%)			
balance of the probabilities (50%)		low	
more unlikely than not (<50%)	(substantial doubt)	low	
improbable		low	
complete uncertainty (0%)		non-existent	

- (48) The Diagram takes a Bayesian perspective of assurance. A Baconian view of assurance would simply remove the far left column and thereby not associate the ordinal strength of the evidence supporting the decision taken with specific ranges or descriptions of probability.

- (49) In accordance with the findings noted above, from a Bayesian perspective reasonable assurance represents a relative concept with a lower bound at a level of certainty corresponding to more likely than not (or as the legal profession would say, the preponderance of the evidence). The need for the lower bound to reasonable assurance arises from the concept of a scope limitation – i.e., there are circumstances where insufficient evidence leads to the inability to reach a conclusion or opinion. The placement of reasonable assurance on the ordinal scale encompassing beyond any reasonable doubt, clear and convincing evidence and the preponderance of the evidence would depend upon the circumstances of the engagement.
- (50) In essence, reasonable assurance is the level of assurance that can reasonably be obtained within the confines of what can reasonably be expected from a certain kind of engagement. From a Bayesian perspective, high and moderate assurance, on the other hand represent absolute concepts, with high meaning at least highly probable (clear and convincing evidence) and moderate ranging from more likely than not to probable (the preponderance of the evidence).
- (51) The range depicted by reasonable assurance does not represent the range of assurance that is acceptably termed “reasonable” for a specific engagement for particular circumstances. Rather, it represents the acceptable range of reasonable assurance across all kinds of engagements for all possible circumstances. For a particular engagement in certain circumstances, what would be construed as “reasonable assurance” would certainly represent a range, the lower bound of which would represent assurance that is not sufficiently reasonable and the upper bound of which would represent assurance which is unreasonably high, but this range may be quite narrow. For example, it is conceivable that for certain kinds of engagements with a very narrow scope, precise subject matter, definitive criteria, and a comprehensive engagement process an extremely high level of assurance would be regarded as reasonable (beyond any reasonable doubt). For other kinds of engagements, the assurance that would be regarded as reasonable may not be more than moderate (i.e., the preponderance of the evidence).
- (52) On the other hand, for specific engagements in certain circumstances that cover a variety of both explicit and implicit assertions within a single conclusion, the range of reasonable assurance may be quite broad. For example, the level of assurance obtained on the audit of cash balances at year-end in an audit of financial statements may be significantly greater than that obtained for assertions encompassing revenue recognition issues requiring considerable professional judgement or for implicit assertions with respect to the absence of material misstatements due to management fraud.
- (53) The concept of “limited assurance”, which is not depicted in the diagram, also represents a relative concept – but one that is relative to reasonable assurance, since this Paper concludes that limited assurance represents the intentional acquisition of a lower level of assurance than that which could reasonably be obtained (reasonable assurance). Furthermore, it is conceivable that the range of assertions covered by the objectives of a limited assurance engagement might be more limited than for an engagement designed to obtain reasonable assurance. In short, limited assurance simply ranks lower than reasonable assurance due to the decision to obtain less evidence. Nevertheless, it should be noted that it is difficult to compare limited assurance for engagements with different scopes (e.g., when particular assertions are scoped out of the engagement objectives for the purposes of the limited assurance engagement).

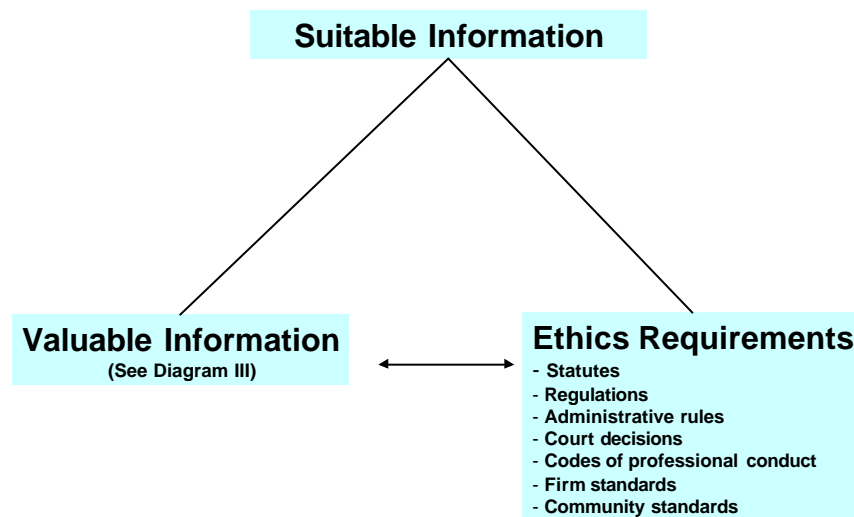
6. ISSUES IN RELATION TO SUBJECT MATTER, CRITERIA, EVIDENCE AND ENGAGEMENT PROCESS

6.A. *Characteristics of the Elements of an Assurance Engagement*

- (54) A prerequisite for an assurance engagement is that its elements – that is, the relevant subject matter, criteria, evidence and engagement process – are suitable for that engagement. Consequently, the practitioner must be able to reach a decision as to whether or not these elements are suitable for the purposes of that engagement.
- (55) It is apparent that decision theory would provide the basis for determining that decision process. Such a decision process would require evidence about the characteristics of these elements for the determination of their suitability. Since evidence is information, sufficient and appropriate information about whether the characteristics of the elements are suitable is required. The key point here is the need for *information* in adequate quantity and quality about the characteristics of these elements.
- (56) The determination of the costs and value of information under information theory establishes the link to decision theory. Ultimately, then, it is the value and cost of the information about the characteristics of the elements that will allow the practitioner to determine whether these are suitable to perform the engagement. This suggests that information theory and other treatments of the qualitative characteristics of information (such as for accounting information) can serve as a basis for establishing the criteria for the determination of whether the information obtained is of adequate quality – that is whether it displays the required qualitative attributes.
- (57) Some concepts in information theory may be useful to the determination of the suitability of information. Furthermore, a comparison of the qualitative characteristics of accounting information to the concepts used in information theory determines that some of these concepts can be applied for the determination of the suitability of engagement elements. The various conceptual frameworks for accounting differ in some important details. The concepts applied in the IFAC Discussion Paper on risk management for accounting systems in an ebusiness environment takes an information processing and evidential approach to these issues.
- (58) The approaches used by standard setters to determine the required characteristics for the elements of assurance or attestation engagements (or for their assertions generated or for the criteria applied) were also compared and synthesized. The accounting and assurance or attestation approaches have a number of similarities, but also contain important differences. Furthermore, there are significant differences in the approaches used by attestation and assurance standards to describe such qualitative characteristics.
- (59) The fact that the information theory, accounting frameworks and assurance and attestation standards contain significant differences is indicative that no consensus has been reached among academics or standards setters about the nature of the qualitative characteristics of information or engagement elements. However, all of these approaches are ultimately rooted in measurement theory – especially as conceived by the behavioural sciences. Consequently, any such analysis needs to touch upon the criteria for determining measurement process validity (including reliability) and practicality.

- (60) Measurement theory includes very sophisticated approaches for dealing with the qualitative characteristics of measurement and the problems associated with such measurement. In a synthesis of information theory, accounting frameworks and assurance and attestations standards, it appears that measurement theory as adjusted for the context in which accounting practitioners work appears to provide the most appropriate basis for the determination of the qualitative characteristics of information.
- (61) The next step would be an overall synthesis of measurement theory with the other approaches. The results are depicted in the following diagrams. The first diagram (Diagram II) depicts the fundamental factors determining the *suitability* of information.

Diagram II



- (62) The diagram above clarifies that there are ethical considerations that govern the association of the practitioner with subject matter or information beyond sheer value to the user. The profession would not favour its practitioners being associated with subject matter or information of a criminal nature or of a nature unbecoming the profession, and the profession and other authorities promulgate codes of professional conduct that prescribe ethical conduct in this regard. Furthermore, ethical considerations and considerations of value are not completely independent of one another. For example, it is unlikely that a profession would deem it ethical to perform an assurance engagement in which it was clear before engagement acceptance that it would not be of value (i.e., not be meaningful) to users by meeting user purposes.
- (63) The fundamental other issue is what makes information *valuable* to users (see Diagram III). Generally, information's *marginal benefits* must exceed its *marginal costs* (i.e., net marginal benefits make information valuable to users). Of course, the costs may not just be out-of-pocket financial outflows, but may also represent opportunity costs measured in other than monetary terms. The cost incurred in obtaining information is guided by the principle of *economy* (obtaining the desired *beneficial information* at minimum cost).

- (64) The *cost* of acquiring the desired information under the principle of *economy* results from the product of the *effort expended* to obtain that information and the *efficiency* of that effort (the cost per unit of effort). In an assurance engagement the effort expended by a practitioner in a particular engagement would depend upon the *resources available* to that practitioner (a constraint not unrelated to the price that users or responsible parties are willing to pay for that information) and the *effectiveness* of the effort in acquiring the desired information. The *effectiveness* of the effort expended to acquire the desired information is in turn dependent upon the *practicality* (after removing the concept of interpretability, which is subsumed under understandability in this Paper, *practicality* refers to the ease and speed with which procedures can be applied in relation to specific evidence) of the procedures applied and the *accessibility* (the degree to which evidence is susceptible to evidence gathering procedures). The *accessibility* of evidence relates to its *traceability* (the degree to which the practitioner can detect the evidence and its sources), *measurability* (the degree to which the practitioner can measure the information – see the following discussion on validity), and its *assessability* (the degree to which the practitioner can understand and evaluate the evidence for the purposes of the engagement – see the following discussion on *understandability*) to an expert party unrelated to the responsible party within a reasonable period of time.
- (65) The *efficiency of the effort* expended by the practitioner in an assurance engagement is determined by the *practitioner cost profile* (the cost associated with certain procedures performed in expending the effort for a particular practitioner) and the *convenience of that effort* (the ease with which these procedures can be performed in the circumstances of that particular engagement).
- (66) Often, however, the costs of assurance engagements to users are not transparent to them, since the users may have succeeded in exerting pressure so that the responsible party is obliged to bear the costs of providing the information (example: statutory audits of financial statements). This thought, however, does not address the economic issue of the incidence of the costs – that is, who ultimately bears the costs, since the responsible party (or even the users) may be in position to pass these costs on to other parties. The issue of incidence of costs goes beyond the scope of this Paper, since it is primarily an economic analysis, but it must be kept in mind when judging information based on its *marginal benefits* vs. *marginal costs* for a particular engagement.
- (67) However, although practitioners are directly concerned about their livelihood and hence the costs of such engagements to users or the responsible party (i.e., the prices that practitioners can charge for assurance engagements and the degree of preparation expected of the responsible party), these costs are usually measured in monetary terms of some sort (e.g., the fees charged plus expenses and the cost of any work that needs to be done by the responsible party so that the practitioner can perform the engagement). Consequently, the costs of the provision of information through an assurance engagement are somewhat determinable and the incremental costs for additional information are usually reasonably estimable and provide a useful surrogate for an estimate of marginal costs.
- (68) On the other hand, the *benefits of the information* provided by the assurance engagement are much more difficult to gauge. As was pointed out, such marginal benefits depend upon the situation of the user and on the characteristics of the information. This means that a conceptual framework for assurance engagements ought to include characteristics of information required for that information to benefit the user once received. Information theory deals with this requirement through the concepts of “appropriateness” (the relevance of the information to the users’ needs) and “clarity” (the degree to which

information is free from ambiguity), whereas accounting theory speaks of “understandability” and “decision usefulness,” or “usefulness to users”.

- (69) In other words, for information to be valuable, its marginal benefits must exceed its marginal costs, and the benefits of the information appear to depend on two factors, which this Paper will term *usefulness* and *understandability*. *Usefulness* can be defined as the potential capacity of the contents of the information to bear on the purposes of the user. *Understandability* can be defined as the degree to which a user can perceive the significance of the information for his or her purposes. Under these definitions, information would have no benefits to a user unless it is both sufficiently *useful* and *understandable* (it is presumed that the user can act on the information so that he or she can actually obtain the potential benefits).
- (70) It should be pointed out that both the concepts *usefulness* and *understandability* reflect a combination of characteristics of the user and inherent to the information (see Diagram IV). One of the determinants of *understandability* is the *user profile* – that is, the level and nature of user understanding or prior knowledge. Furthermore, there is an assumption that users are prepared to study the information with reasonable *diligence* and have a reasonable level of *knowledge* of the subject matter, criteria and the nature of the engagement.
- (71) On the other hand, the *user profile* may also present problems to those engaged in measuring, presenting and reporting information. In particular, individuals may prefer limited rather than comprehensive information due to their threshold for *information overload*, which, if exceeded, may cause them to not perceive information as being significant even when it is so. In addition, individuals have different *thresholds for ambiguity* – sometimes information appropriately conveys ambiguity, but individuals may not feel comfortable with that level of ambiguity and hence attribute greater certainty to the information than is warranted. Studies have also shown that individuals are poor natural statisticians – that is, they tend to base estimates and predictions on recent or available observations even though these may neither be representative of long-run conditions nor reflect objective probabilities (the *subjective probabilities* problem).
- (72) Individuals may apply a number of strategies to deal with such complexities in information, including *functional fixation* and *anchoring*. *Functional fixation* suggests that individuals apply symbols, aggregations or surrogates in making judgements such that these are assumed to maintain the same meaning over time, irrespective of changes in what they represent or in the way they are computed. *Anchoring* suggests that individuals tend to use new information to adjust old information and thereby fail to fully adjust for significance of the new information.
- (73) A number of findings resulting from the effect of information on decision making include:
 - irrelevant information added to an information set tends to decrease the performance of decision makers (*information overload*)
 - decisions makers tend to overemphasise highly correlated information (*correlation emphasis distortion*)
 - increased amounts of information tend to inhibit learning (*information overload*)
 - decision makers tend to overestimate the emphasis they place on minor cues (*cue emphasis distortion*)

- decision makers rely more heavily on a few major variables than they believe they do (*oversimplification*).
- (74) There are also other approaches to dealing with the way in which individuals process information, such as models that deal with human information processing (e.g., the lens model, Bayesian probabilistic judgment and the cognitive complexity/cognitive style models). However, a complete treatment of the behavioural aspects of information is beyond the scope of this Paper. Rather, it is important to recognise the limitations of users in their use of information.
- (75) The other determinant of *understandability* relates to the *profile of the information* in terms of its *inherent comprehensibility*, which depends upon whether the information is:
- *identifiable* (the degree to which users are able to identify the existence of the information),
 - *delineatable* (the degree to which users are able to determine the boundaries of the information for a particular matter versus information about other matters)
 - *intelligible* (the degree to which the information is formally presented by means of *channels, media* and in *language or symbols* that potentially relevant users generally can be expected to understand),
 - *clear* (the degree to which information is *unambiguous*, i.e., not subject to significantly different interpretation by potential users),
 - *concise*: the degree to which the information as a whole is not so burdened with less important information or this less important information is not so emphasised that potential users may more easily perceive the significance of other more important information; conciseness can generally be achieved by means of
 - *discrimination*: being discriminating in the inclusion of information – that is, by not reporting clearly immaterial information,
 - *brevity* or *compactness*: ensuring that a given volume of information is in as brief and compact a form as possible without redundancy so that it does not overtax the attention span of the user
 - *level of detail*: by means of *aggregation* and *summarisation* of information, ensuring that only that level of detail of information that aids user understanding is included
 - *presentation*: ensuring that the information is appropriately *classified*, in the appropriate *order* by nature and chronologically, appropriately *organised*, and that more material information is reported or presented in a more prominent fashion than less material information – that is, *emphasis by importance*),
 - *comprehensive* (the degree to which all of the information necessary for its being understood by potential users is included), and
 - *interpretable* (the degree to which the potential meaning contained in the information can inherently be perceived).

Nevertheless, it should be recognised that the required *profile for information* cannot be completely segregated from the *user profile*, since the two are closely related.

- (76) Like *understandability*, the *usefulness* of information depends upon both the user and the nature of the information (See Diagram V). On the one hand, a *user* must have particular *information needs* relating to the subject matter and, to the extent that there are multiple users, these may have different information needs. This suggests that the concept of *flexibility* of information in information theory (the usability of the information for more than one user) could be an important component of the determination of *user needs*.

- (77) There are those, such as Sterling, who would suggest that the *usefulness* of information depends upon whether the given attributes measured and hence contained in that information are specified by the decision model employed. This implies that those providing the information would need to know the variables and relationships employed by the models used by decision makers. In certain kinds of assurance engagements, this may be true. However, for many kinds of assurance engagements, such as for audits of financial statements, the information to be specified in the financial statements may need to meet the needs of many different kinds of users that employ varying decisions models based upon the decisions for which the financial statements are being used. Consequently, for some kinds of assurance engagements, *flexibility* remains an important concept for determining *user needs*.
- (78) To be useful, the information must be capable of meeting at least some of *users' needs* to some degree: that is, the information must matter in terms of user needs. Information matters to user needs if it is *material* to these needs by being capable of influencing user judgement. Hence, *materiality* can be defined as the principle that information should be reported to users if it is at least probable that, in light of the surrounding circumstances, the judgement of a reasonable person using this information would be influenced by its being reported. In addition, *materiality* also encompasses the principle that information reported to users should be free of misstatement if, in light of the surrounding circumstances, it is at least probable that the judgement of a reasonable person using this misstated information would be influenced by the magnitude of such misstatement. Negatively and more precisely stated, an omission of reported information or the magnitude of a misstatement of reported information is *material* if, in light of the surrounding circumstances, it is at least probable that the judgement of a reasonable person using the information would have been influenced by that omission or misstatement.
- (79) Used in this sense *materiality* reflects both a qualitative characteristic (what needs and does not need to be reported: i.e., required inclusions vs. omissions allowed) and a quantitative characteristic (how precise and accurately information needs to be reported: i.e., the permissible magnitude of misstatements for included information). The *materiality* principle also implies that all potentially material information needs to be measured and reported. In other words, the *materiality* principle represents an implicit requirement based upon the threshold set for *materiality*. Furthermore, under the principle of materiality, clearly immaterial information *need not* be reported. That clearly immaterial information *should not* be reported is a function of the *understandability* requirement in relation to the *user profile* (*information overload*) and the information profile (*conciseness*).
- (80) Whether particular information is *material* or not, then, depends upon the capacity of that information to influence users given their information needs and all such information that has the capacity to influence users must be reported. In addition, material information reported to users needs to be free of material misstatement.
- (81) *Materiality* considerations play a role in what needs to be reported and hence in what needs to be measured that is then reported (the qualitative aspect). Likewise, *materiality* considerations play a role in how accurate and precise reported information and hence its measurement need to be (the quantitative aspect). Therefore, *materiality* is also a concept that relates not only to what is reported to users and how, but also relates to the measurement *process* applied by the responsible party and hence the practitioner.

- (82) Since *materiality* relates to both measurement and the reporting of measurement, and is defined in terms of the capacity to influence users, there is a question as to whether *materiality* in an assurance engagement is different from *materiality* in other contexts (e.g., is auditing *materiality* the same as or different from accounting *materiality*). There does appear to be a widely accepted notion that there is no difference between accounting and auditing *materiality*. Since both accounting and auditing *materiality* are generally defined in terms of user requirements, this position appears logically supportable.
- (83) However, it also implies that then there is in fact no such thing as auditing *materiality*, for accounting (the financial statements) can exist independently of whether or not it is audited, whereas an audit can only exist when the subject matter being audited (the accounting as reflected in the financial statements) also exists. Consequently, while *materiality* is a concept that is central to the measurement and reporting involved in an assurance engagement, *materiality* relates to user needs in connection with particular subject matter independently of whether or not an assurance engagement will be carried out. This position is consistent with recent research literature on assurance and audits. However, it should be recognised that by including *materiality* within their accounting frameworks, accounting standards setters have also made *materiality* a part of the criteria by which financial statements (the subject matter) are evaluated in a financial statement audit.
- (84) However, it should be recognised that information that is not *available* regardless of 1. the *effort* made to measure and report it, 2. its potential *materiality* and 3. the needs of users, cannot be *useful*. The concept of *availability* should be distinguished from the concept of *accessibility*, which ties into the concept of *effectiveness* of practitioner *effort* in an assurance engagement (see the discussion on the *cost of information* above). . *Accessibility* represents a continuum, depending upon the *traceability*, *measurability* and *assessability* of the evidence representing the information, that ultimately may be reflected in the *cost* of the engagement or in obtaining the information. Even though in part the same factors apply (*traceability*, *measurability* and *assessability*), *availability*, on the other hand, represents a dichotomy rather than a continuum where regardless of the effort applied by the practitioner or user, the information necessary cannot be obtained. Furthermore, *availability* also depends upon the *existence* of the information or evidence and the *practicability* of available procedures (i.e., are they possible) to acquire that evidence or information. Nevertheless, in some circumstances other supporting information may be available, which may act as a substitute for the information desired. Therefore, on the whole, *availability* refers whether the information necessary is can be acquired per se.
- (85) Hence, the *usefulness* of information depends upon *user information needs*, the *materiality* of the information and its *availability*. It was noted that *material* information has the capacity to influence users. This capacity depends upon the following factors: *timeliness*, *comparability* and *validity*. *Timeliness* refers to the measurement and reporting of information to users at a time or over time such that the information does not lose its capacity to influence those users. In other words, if otherwise *material* information reaches users after it has lost its capacity to influence them, then such information cannot be considered *material*. *Timeliness* means ensuring that the information is conveyed to users at the *time required* (i.e., not too soon or too late). This in part depends upon *time elapse* – that is, the time required to identify, measure, evaluate and report that information to the user after the event giving rise to the information has occurred.

- (86) Another aspect of materiality is *comparability*, which refers to the degree to which particular information is *comparable* with *competing* or *corroborating* information. While, strictly speaking, *comparability* is an attribute of information that makes it useful to users, *comparability* is also subject to *materiality* requirements, for these requirements determine the degree to which such *comparability* is required, and in many cases information that is not *comparable* with *competing* or *corroborating* information may not be *material* (i.e., will not be capable of influencing users). Consequently, *comparability* is an aspect of materiality. One component of *comparability* is *consistency*, which refers to the *comparability* of information with *competing* or *corroborating* information over time. In those cases where information is not perfectly *comparable* and this is not directly obvious from the information as presented, it is important that those differences leading to the *material* impairment of comparability be *disclosed*.
- (87) The third factor affecting *materiality* is the *validity* of the information (see Diagram VI). As adapted to measurement and reporting in an assurance engagement environment, *validity* can be defined as the extent to which information measures and communicates what one actually desires to measure and communicate. *Validity* relates to the *validity* of the content of the information reported (*information validity*), which in turn depends upon the *validity of the measurement or engagement process*. *Information validity* comprises three types of *validity* that are predicated upon *information reliability*:
- *content validity*: the degree to which the content of the information adequately represents the universe of all items associated with the subject matter; content validity requires
 - *representativeness* of the information, when applying *inductive* approaches, and
 - *representational faithfulness* of the information (i.e., the represents what it purports to represent, including any representations with respect to the information's supposed reliability)
 - *completeness* of the information (i.e., no material components or aspects of the information are omitted)
 - *quantifiability* of information (i.e., the degree to which information can be formally presented in terms of its logical – not numerical – quantifiability)
 - *criterion-related validity*: the degree to which information is useful in predicting or confirming a criterion (events or conditions); there are three kinds of *criterion-related validity*:
 - *concurrent criterion-related validity*: the degree to which information is useful for predicting concurrent criteria (events and conditions that can be measured concurrently)
 - *future criterion-related validity*: the degree to which information is useful for predicting criteria measured in the future (future events or conditions)
 - *confirmatory criterion-related validity*: the degree to which information is useful in confirming past criteria (events or conditions that occurred in the past)
 - *duration*: refers to the time factor in determining *criterion-related validity of information*; factors to consider in relation to duration include:
 - *currency*, which refers to the information being sufficiently up-to-date to allow the criterion to be predicted or confirmed
 - *expiry disclosure*: in many cases, it is known in advance that information may no longer be current if certain subsequent events occur or due to the passage of time; hence in these cases without explicit disclosure within the information of its limitations the information may not be *valid*
 - *construct validity*: the degree to which the information is supported by certain observable events or conditions implied by the construct applied

- *reliability*: the *accuracy* and *precision* of information, each of which can be defined as follows:
 - *accuracy*: the degree to which bias is absent from the information (i.e., the lack of systematic variance, or error, which is defined as the variation in information due to some known or unknown influences that cause results to tend in one direction more than another)
 - *precision*: the degree to which the random errors remain in the information after having adjusted for systematic variance; for numerically described quantitative information, precision comprises:
 - *significance*: the number of significant digits in a number (with the last digit representing that part of the number still subject to a degree of unsystematic error or tolerance)
 - *tolerance*: the degree to which the last significant digit is subject to unsystematic error.
- (88) While the previous description of *validity of information* in part addresses *validity* issues associated with the reporting of information, it does not, however, address the *validity* issues associated with measurement of information, which is a prerequisite for the *valid* reporting of and hence valid content of information. *Validity* with respect to *the measurement and reporting of information* (i.e., *the engagement process*) encompasses:
- *content validity*: pertains to inferences about *measurement or reporting construction* rather than inferences about measurement or reporting results – that is, the *appropriateness of the measurement or reporting constructions or instruments* (set of *measurement or reporting operations*) to meet the purposes for which they are being used; it in part depends upon the degree to which information can be measured and reported in terms of its *logical quantifiability*
 - *criterion-related validity*: the degree to which a *predictor* measured or reported is useful in predicting or confirming a *criterion* (*events or conditions*); in this case the *validity criterion* must be *valid* itself, i.e. the *criterion* should be defined and described in terms judged to be proper measures of the attribute or property in question and must be *reliable*
 - *construct validity*: identification of the underlying constructs being measured or reported and a determination of how well the measurement or communication represents them – i.e., do the *observable relations* being measured or reported (*the set of operations*) adequately represent the *construct* (*an abstract variable constructed to represent important attributes or properties*) that embodies certain *theorems* about these observable relations that can be tested empirically; in other words the construct validity of a measurement or reporting operation relates to the *empirical evidence* in support of the measure or communication in relation to certain observable events or conditions implied by the construct
 - *reliability* (see Diagram VII): the *accuracy* and *precision* of measurement or reporting procedures; *measurement and reporting reliability* encompasses the following concepts:
 - *stability*: the degree to which consistent results are achieved with repeated measurements or communications of the same subject matter with (a) *the same instrument over time* or (b) *under different conditions*, or *the consistency of the measurement or reporting operation*
 - *equivalence*: the degree to which alternative forms of the same measure or communication (due to *different measurers or reporting parties*, or to *variations in the sample of items* chosen for the measurement or reporting) produce the same or similar results

- *internal consistency*: degree to which instrument items are homogeneous and reflect the same underlying constructs
- *accuracy*: the degree to which *bias is absent* from the measurement or reporting process (i.e., *the lack of systematic variance, or error*, which is defined as the variation in the measurement or communication due to some known or unknown influences that cause results to *tend in one direction* more than another or *towards predetermined results*)
- *precision*: the degree to which the *random fluctuations* in the measurement or reporting process (*error*) remain after having adjusted for systematic variance; these may be caused by the *imprecision of the operation, lack of information, misinformation, miscalculation*, etc.; for the measurement or communication of numerically described quantitative information, precision comprises:
 - *significance*: the number of significant digits in a number (with the last digit representing that part of the number still subject to a degree of unsystematic error or tolerance) allowed by the measurement or reporting process;
 - *tolerance*: the degree to which the last significant digit is subject to unsystematic error under the measurement or reporting process
- *refinement*: the degree to which a measurement or reporting operation has been made precise and accurate through model development tested against empirical observation
- *security*: a prerequisite for the measurement and reporting of accurate and precise information is adequate security over that information; adequate security covers:
 - *integrity* (data and information are protected against inadvertent corruption or unauthorised modification or manipulation, either through inalterability, whereby no information can be changed such that its original content can no longer be identified, or through logs, whereby the changes to the original information or data are recorded)
 - *confidentiality* (data and information is protected against inadvertent or intentional disclosure to parties not authorised to receive that information or data – this is of particular importance where the disclosure of the data or information could have an impact upon its currency through the reaction of the recipients)
 - *authenticity* (there are means by which authentic data and information can be distinguished from non-authentic data and information)
 - *authorisation* (only those persons so authorised have access to particular information or data, whether in terms of reading, modification or reporting)
 - *non-repudiation* (the measurement and reporting of information or data bring about the desired legal consequences with binding effect)
- *sources of error*: the following sources of error may lead to *inaccuracy* or *imprecision*:
 - *vagueness* (attribute or property being measured or communicated not clearly defined)
 - *measurer errors* (*intentional bias, unintentional errors, misinterpretation of measurement or reporting operation, use of improper channels, media, or languages or symbols*)
 - *instrument errors* (defective or flawed instrument for measurement or reporting)
 - *imprecise measurement operation* (*vague or ambiguous rules of measurement or reporting subject to varying interpretation, environmental factors affecting the measurement or reporting operation, or time elapse*)

- *respondent error* (errors resulting from the behaviour or respondents when behaviour of individuals or groups of individuals is being measured).
- (89) The *validity* of the scale applied (nominal, ordinal, interval or ratio) also determines the *validity* of information and the *engagement process* used to produce and report that information. With the exception of *security* and *sources of error*, for both *information* and *process validity*, the *reliability* factors represent the requirements for measurability. The *security* concept represents a prerequisite for appropriate *measurement* and *reporting*. The *sources of error* represent limitations on *measurability*.
- (90) The characteristics of *valuable information* described in the previous paragraphs are depicted in the following diagrams.

Diagram III

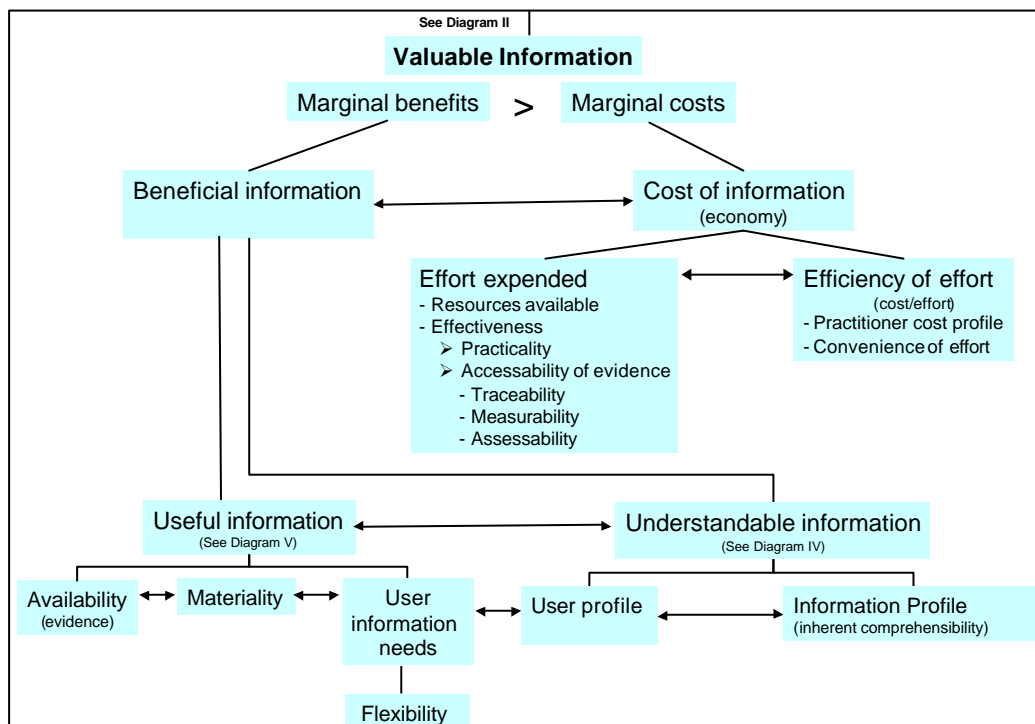


Diagram IV

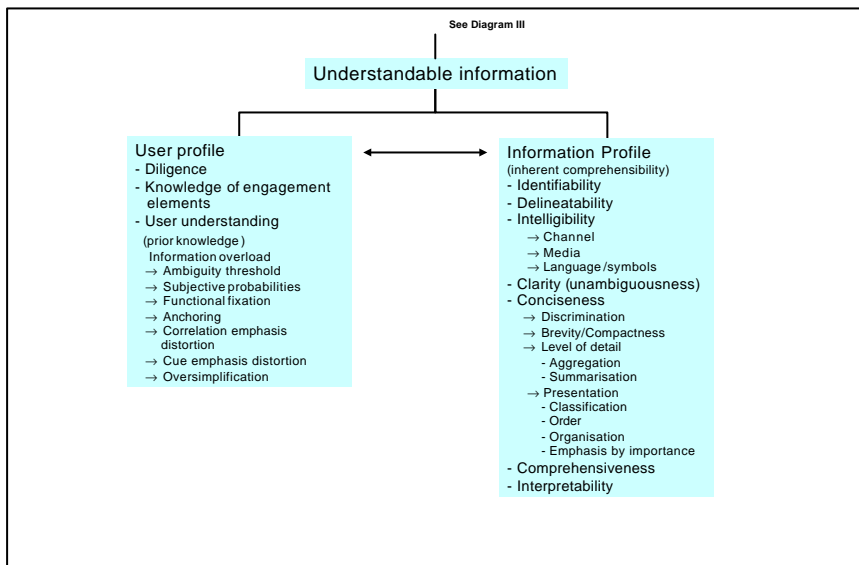


Diagram V

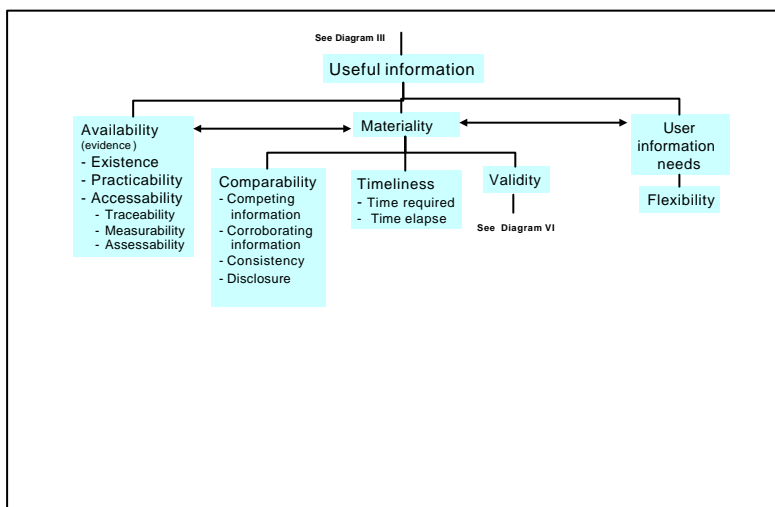


Diagram VI

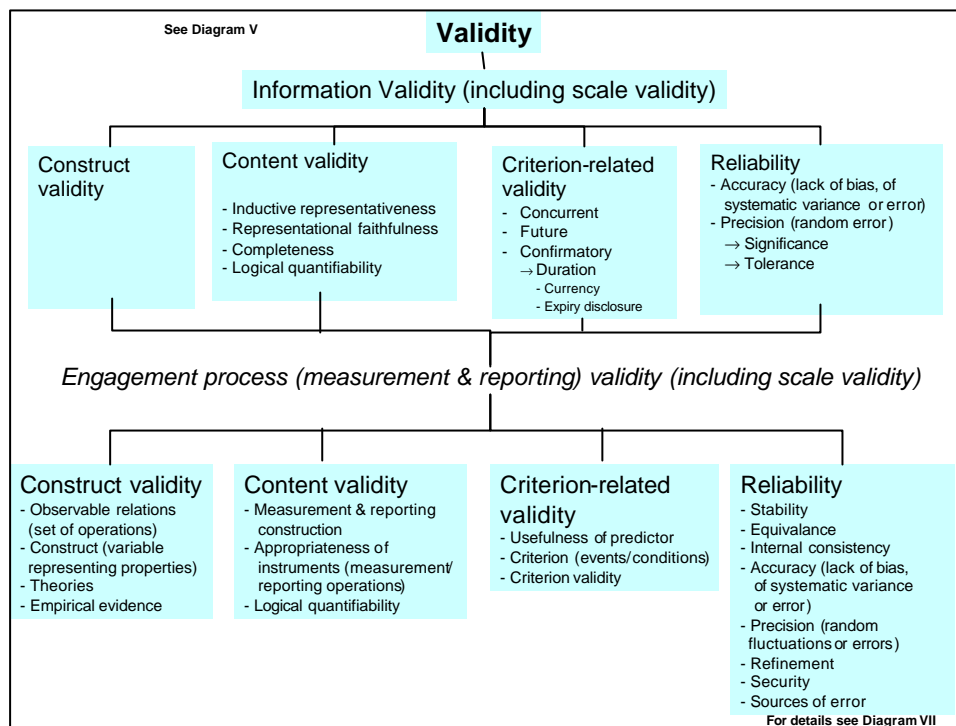
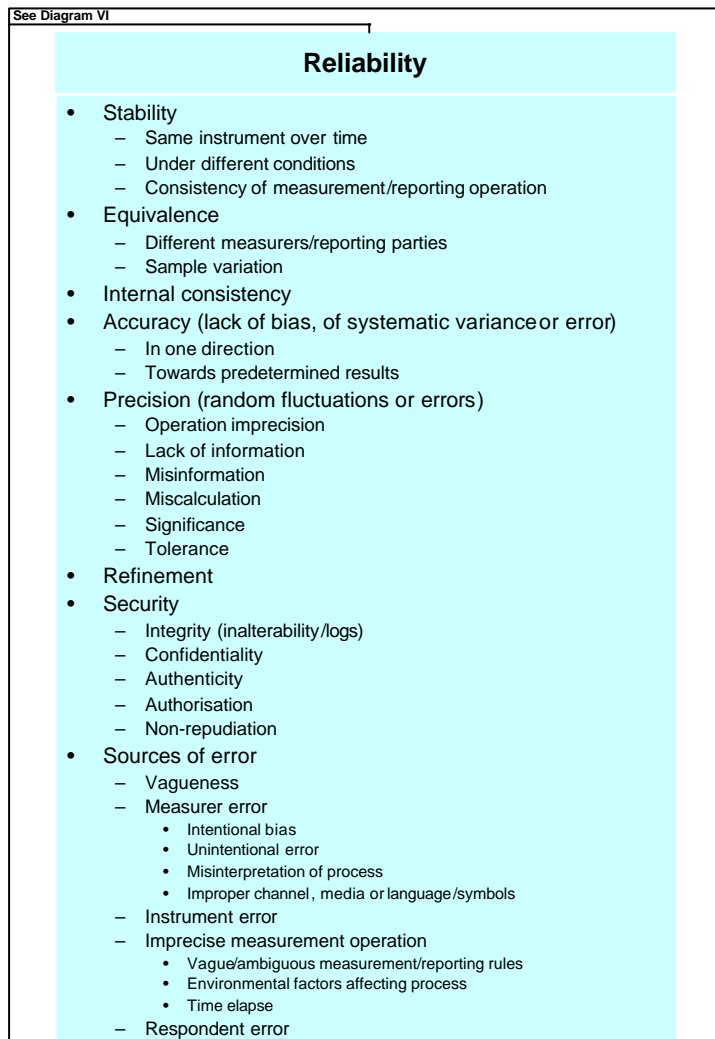


Diagram VII



- (91) The double-sided arrows in the previous diagrams signify an interaction between the concepts that implies that the concepts cannot be considered in isolation from one another. Purists might argue that *information validity* is just an expression of *measurement and reporting validity*, since, strictly speaking, one validates not a measuring instrument but rather some use to which the instrument is put. In other words, the *validity* of the process is of primary concern rather than the *validity* of the results. This is true, but professional accountants are ultimately concerned about the results – that is, the *usefulness* of the information in itself to users. Consequently, for practical purposes practitioners may also look to the *validity* of the results due to the validity of the process.
- (92) The concept of *reliability* is often confused with the concept of *credibility*. This Paper defines *credibility* in terms of the assurance attributed by the user of a practitioner's opinion or conclusion on the subject matter. In this sense, the *reliability* of information relates to its *accuracy* and *precision*, whereas the *credibility* of information relates to the degree to which the user perceives it likely that the information is as *reliable* as needed or as *reliable* as it purports to be.

- (93) In conclusion, the *suitability* of information (and the processes used to *measure and report* that information) depends upon whether or not that information is *valuable* and meets *ethical* constraints. The judgement about the suitability of the elements of an assurance engagement (subject matter, criteria, evidence and engagement process) is based upon the information about these. Hence, the suitability of the elements of an assurance engagement depends upon these elements yielding valuable information to users.

6.B. Subject Matter

- (94) Subject matter in an assurance engagement is defined as any specific matter (entity) subjected to measurement and evaluation based on the criteria applied in the assurance engagement process and upon which the practitioner expresses to the user a conclusion or opinion with a certain level of assurance obtained to support that conclusion or opinion. To analyse the nature of subject matter in a general sense, this Paper applies measurement theory as well as metaphysical and logical argument. Measurement theory and metaphysical argument are useful tools for describing the nature of actual assurance engagements, but the circumstances of the engagement have a significant impact on the way in which measurement theory is applied.
- (95) In an assurance engagement, the practitioner measures and evaluates the indicants (operationally defined constructs used as an index to describe the properties being measured) of properties (observable aspects or characteristics measured) possessed by subject matter and uses the manifested outcomes (manifestations) of these measurements to determine whether the subject matter possesses those properties and manifestations thereof predicated by those properties essential to being a member of a particular class of subject matter.
- (96) The basis for this conclusion is as follows. The properties and manifestations thereof that are deemed essential to membership in a particular class of subject matter in effect represent the *criteria* that determine membership in that particular class of subject matter. Hence, property ascription to classes of subject matter defines the membership criteria for those classes. As a result, property ascription to classes of subject matter represents the link between criteria and classes of subject matter. In this sense, the application of the criteria to measure or evaluate the subject matter in an assurance engagement represents a *classification exercise*, in which the practitioner determines whether the subject matter possesses the essential properties (the criteria) for membership in the class in question. Accidental properties of specific subject matter within a class allow the differentiation among specific subject matter within that class.
- (97) Whether value-for-money engagements qualify as assurance engagements in this sense is an issue that requires further deliberation and research.
- (98) In exploring the nature of the relationship between subject matter and criteria, it appears that the existence of subject matter may be either dependent upon or independent of the criteria. One may suspect that for cases in which the subject matter exists independently of the criteria, the deviations of the subject matter from the criteria would generally be greater than for those cases in which the subject matter exists only because of the criteria. Furthermore, in certain cases, independent subject matter and criteria may be interchangeable based upon the perspective of the assurance engagement. These issues may require further academic research.

- (99) One difficulty in an assurance engagement is to identify the appropriate subject matter. The identification of subject matter should be guided by the following principles:
1. the identification of the subject matter should not lead to the definition of any properties, criteria, manifestations or indicants that require a reference to an entity of which the subject matter is subsidiary (i.e., a property, criterion, manifestation or indicant of that entity), since this would lead to circular reasoning;
 2. separate conclusions or opinions should not be expressed for those cases in which some of those conclusions or opinions do not yield valuable information without being expressed in conjunction with other independent conclusions or opinions;
 3. separate conclusions or opinions should not be expressed for conclusions or opinions that are dependent upon one another. However, there may be different degrees of interdependence of conclusions. This difficult area may require further academic research.
- (100) By applying the definition of suitable information developed previously, one can conclude that subject matter (and its properties being measured) is suitable for the engagement when the application of the criteria to the subject matter generates suitable assertions. Assertions are suitable when they are sufficiently valuable for the users of that information, by satisfying the characteristics of valuable information, and meet ethical requirements.
- (101) While suitability of subject matter (and its properties and indicants thereof) for given criteria represents a continuum across engagements types and specific engagements within such types, for a particular engagement the suitability of the subject matter depends upon the circumstances of that specific engagement and would represent a threshold to be satisfied to enable the performance of the assurance engagement.
- (102) In light of the analysis of subject matter, the issue of the definition of subject matter in relation to the information-data vs. other subject matter dichotomy discussed previously can be revisited. As was noted previously, there is little advantage to distinguishing between direct and indirect engagements, but there are important differences arising between measurement versus remeasurement engagements. In an assurance engagement, the assertions measured by the practitioner are generated by the application of the criteria on the subject matter. Although the assertions represent information or data, it is not clear that this conclusion has a critical impact on the nature of assurance engagements. Certainly, one can only lend credibility to information. The fact that the performance of an assurance engagement may lead to improvements in the quality of the subject matter is an ancillary effect that is not essential to an assurance engagement.

6.C. Criteria

- (103) Criteria represent standards by which a practitioner judges whether a specific subject matter belongs to a particular class of subject matter whose essential properties and manifestations thereof are defined by those criteria. Some criteria are not as well developed as others and therefore supplementary criteria may need to be developed and applied. Assertions, whether explicit or implicit, about subject matter are generated by the application of the criteria to that subject matter.

- (104) Standard setters have developed criteria for determining whether criteria are suitable for an assurance engagement, but the nature and scope of these criteria vary. The application of the characteristics of suitable information as defined in this Paper appear to offer better means of evaluating the suitability of criteria. Based on the examination the nature of subject matter undertaken previously, the nature of criteria is very similar to that of subject matter. This includes the view that the suitability of criteria depends on both their application leading to valuable information for given subject matter and meeting ethical requirements. Furthermore, the suitability of criteria represents a continuum, but for a specific engagement, the criteria must be sufficiently suitable for that engagement. Like subject matter, criteria must be susceptible to evidence gathering procedures. It appears to make intuitive sense that users should have access to the criteria in some way, but this is an issue that may require further research.
- (105) The question arises whether there ought to be differences in approach for established versus specifically developed criteria. However, specifically developed criteria need not necessarily be less suitable than established criteria. Nevertheless, when established criteria are available and meet the objective of the engagement (i.e., yield suitable assertions or information), these should be used, since presumably their suitability for that kind of engagement has been established by certain bodies operating in the public interest.
- (106) The practitioner would need to perform more work to assess the suitability of specifically developed criteria compared to that which would need to be performed to assess the suitability of established criteria. The suitability of established criteria for certain kinds of engagements would have authoritative support, whereas such authoritative support would be lacking for specifically developed criteria. If specifically developed criteria are applied, their application should be agreed with the responsible party and the users and the report restricted to those parties. In any case, the application of the criteria should not lead to unsuitable assertions (misleading information) in the assurance report.

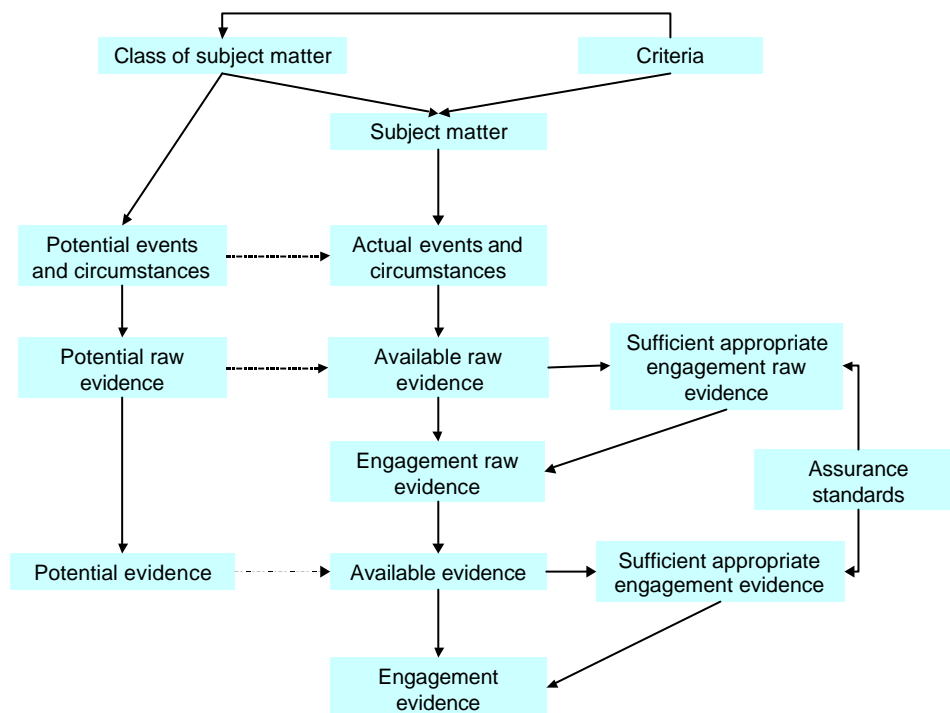
6.D. Evidence

- (107) There are different definitions of evidence in commonly used English, legal terminology, audit and assurance literature, and audit and assurance standards. An operational definition of evidence depends upon an analysis of its nature.
- (108) Evidence is information, which cannot be segregated from the state of mind of the recipient or user. Evidence should therefore be distinguished from raw evidence (data about events and circumstances) arising from events and circumstances and the events and circumstances themselves. Since evidence represents information, evidence is subject to the characteristics of suitable and hence valuable information. Furthermore, evidence is information that supports the beneficial nature of other information.
- (109) In the context of an assurance engagement, a practitioner should obtain sufficient appropriate engagement evidence, which represents any information that the practitioner may reasonably be expected to obtain to draw conclusions on which to base the overall opinion. Engagement evidence, on the other hand, represents the evidence actually obtained in a particular engagement.

(110) In summary, one can therefore identify the following evidence concepts:

- events or circumstances: any subject matter, or its properties, or indicants or manifestations thereof
- potential events or circumstances: the subject matter or its properties, or indicants or manifestations thereof, that could possibly exist for a given class of subject matter
- actual events or circumstances: the matter subject to the assurance engagement or its properties, or indicants thereof, the measurement of which, or the manifestations of these representing measurement outcomes, that lead to the creation of raw evidence
- raw evidence: the data that is gathered to represent certain aspects (properties, manifestations and indicants) of events or circumstances by measuring these using the criteria
- potential raw evidence: the data that could potentially be gathered to represent certain aspects (properties, manifestations and indicants) of potential events or circumstances by measuring these using the criteria
- available raw evidence: the data that can be gathered to represent certain aspects (properties, manifestations and indicants) of events or circumstances by measuring these using the criteria
- sufficient appropriate engagement raw evidence: given the available raw evidence, the data of sufficient amount and appropriate kind that a practitioner can reasonably be expected to obtain, in a particular assurance engagement as a basis for sufficient appropriate engagement evidence (see below), to represent certain aspects (properties, manifestations and indicants) of events or circumstances by measuring properties or indicants
- engagement raw evidence: the data that has actually been gathered in an assurance engagement to represent certain aspects (properties, indicants or manifestations) of events or circumstances by measuring properties or indicants using the criteria
- evidence: any information derived from raw evidence that contributes to the confirmation or refutation of assertions about certain aspects of events or circumstances
- potential evidence: the evidence that could potentially be derived from potential raw evidence to contribute to the confirmation or refutation of assertions about certain aspects of potential events or circumstances
- available evidence: the evidence that can be obtained about events or circumstances by gathering raw evidence about these
- sufficient appropriate engagement evidence: the evidence that a practitioner can reasonably be expected to obtain to draw conclusions on which to base the overall conclusion
- engagement evidence: the evidence that a practitioner has obtained in a particular engagement to draw conclusions that support the overall conclusion expressed.

(111) The following diagram attempts to provide an indication of the relationships between the concepts noted above:



(112) In conclusion, evidence is a form of information generated by the application of the criteria on the subject matter that contributes to the confirmation or refutation of assertions about events and circumstances in connection with subject matter. There are different concepts of evidence resulting from the interrelationship between classes of subject matter, specific subject matter, and the outcomes of measurement operations. Conclusions are assertions by the practitioner derived from engagement evidence based on logical arguments that apply professional judgement.

(113) With respect to the suitability of evidence, the validity of the processes for obtaining evidence and hence the validity of the evidence concepts are of particular importance in assessing the suitability of evidence for given subject matter and criteria under the objective of suitable information for users. Furthermore, the suitability of evidence represents a continuum across engagement types and engagements within types, but would act as a threshold within a particular engagement.

(114) Corroborating evidence is any evidence that contributes to the confirmation of assertions embodied in other evidence. For evidence to be corroborating, it must at least by implication “contain” the same assertions as the evidence being corroborated, but the process to obtain the corroborating evidence must be independent of the process to obtain the evidence being corroborated. If the process used to obtain the evidence being corroborated and the corroborating evidence lead to different results, the measurer is alerted to the fact that one or the other or both processes are not sufficiently valid.

(115) The discussion on the concepts of persuasive and conclusive evidence in light of the analysis of the nature of evidence can also be revisited. Conclusive evidence is that which is clear and convincing, whereas persuasive evidence represents only the preponderance of the evidence. This would mean that evidence that is less than persuasive does not

support an assertion with at least the preponderance of the evidence. Persuasiveness and reasonableness relate to the degree to which evidence supports certain information or a particular assertion by adding credibility thereto: the more suitable and credible the evidence, the more that evidence will add credibility to that information or assertion.

- (116) Most auditing, attestation and assurance standards contain guidance as to the types of evidence, and classify these by nature (qualitative or quantitative), source (internal or external) and medium (visual, oral or documentary). This guidance usually also describes their relative reliability. An examination of these types of generalisations leads to the conclusion that their relative reliability depends heavily upon the individual circumstances of the engagement. Consequently, generalisations in these matters ought to be avoided.
- (117) The auditability of subject matter for given criteria depends upon whether sufficiently suitable evidence can be obtained. Measurability is a concept that describes whether sufficiently reliable evidence or information can be obtained through the measurement process. Availability and accessibility are concepts relating to information and hence evidence as described in the characteristics of suitable information (see the diagrams on the characteristics of suitable information above).
- (118) A central issue in assurance engagements is the effect of the quality and quantity of evidence obtained on the level of assurance obtained.
- (119) There appears to be a common presumption among standard setters that the quality of evidence must be appropriate and quantity of evidence sufficient to be able to reach a conclusion or form an opinion. Furthermore, most standard setters recognise that either the nature of evidence can be of lesser quality for an engagement of lesser assurance compared to that required for an audit or high assurance engagement. More controversial is whether a reduced quantity of evidence is required for an engagement of lesser assurance compared to that for an audit or high assurance engagement.
- (120) In the application of the concept of “confirming evidence”, which provides an explanatory connection between the conclusion and the evidence supporting it with a high epistemic probability, the confirming evidence increases the assurance obtained by the practitioner by means of uncertainty reduction, which would be measured by comparing the credibility of the assertion being examined after the evidence is obtained with the credibility of the assertion before such evidence was obtained. In other words, evidence increases the credibility of assertions. However, this is not a new insight – nor does it explain how more evidence of given quality or improved quality of evidence for a given quantity increases credibility. This quandary is not necessarily solvable. There is no generally accepted view as to what is necessary for sufficient epistemic support.
- (121) Consequently, at the present time practitioners may simply accept the assumption that, all other things being equal, more evidence of given quality or better quality evidence of given quantity may lead to increased assurance. However, it must also be recognised that there are situations where an increase in the quantity of evidence will not offset insufficient quality due to a lack of validity other than inductive representativeness; likewise, an improvement in the quality of evidence may not offset insufficient quantity due to a lack of validity because of insufficient inductive representativeness.
- (122) This does not mean that practitioners are not in a position to “justify” the nature and extent of evidence that they have obtained to support their conclusions for a particular engagement. Rather, practitioners would apply reasoning to develop an argument by

induction, deduction or abduction (inference to the best explanation) to support the conclusion. Important in this respect is the acceptance by the responsible party, users, the courts and others in the profession of the means of argument. The conclusions drawn by practitioners must be based on arguments that are acceptable to foreseeable users (notably, the courts) of the conclusions. In other words, the arguments applied must have sufficient equivalence.

- (123) Another issue in relation to the effect of the quantity and quality of evidence on the level of assurance obtained is the nature of the assumptions that practitioners are allowed to make in their arguments supporting their conclusions. There is a difference between an assessment and an argument supporting that assessment. In an assurance engagement, a practitioner is required to obtain evidence to support his or her assessment. This begs the question as to why such evidence (and how much – both in terms of quality and quantity) is required.
- (124) Strictly speaking, the need for evidence to support the assessment arises from the question as to with what strength the practitioner needs to make the assessment – i.e., what is the acceptable level of risk that the practitioner's assessment of engagement risk is not correct? Ultimately, even the assessment of the strength of that assessment, and so forth, may also be questioned, ad infinitum. This quandary leads to two conclusions: 1. the practitioner requires evidence to support his or her assessments and 2. the nature and extent of the required evidential support depends upon the presumptions that the practitioner is allowed to entertain – that is, the presumptions that users (and the courts) are willing to regard as reasonable presumptions. The question with respect to the presumptions that practitioners may generally entertain is closely connected to the meaning of “professional scepticism” as described in the section of this abridged version dealing with “reasonable vs. high assurance” and presumptions of management's good faith.
- (125) This has major implications for the nature and extent of assurance engagements. For example, in a forensic audit, it is likely that the collective strength of the presumptions that a practitioner may reasonably entertain may be significantly less than in a normal audit of financial statements (e.g., that the documents and records are genuine in the absence of indications to the contrary). In fact, since in a forensic audit the auditor may obtain access to records and other evidence through prosecutors' subpoenas that would not normally be available to an auditor in a financial statement audit, a practitioner performing a financial statement audit may be forced to entertain presumptions of greater strength than would be acceptable in a forensic audit.
- (126) The less effective the acceptable presumptions are, the more evidential support for the practitioner's assessment would be required. Furthermore, the more evidential support required, the greater the cost of the engagement. This analysis uncovers the fundamental nature of the discussion of financial statement auditors' responsibility for fraud: in the end, the public may wish auditors to accept responsibility for detecting material fraud in financial statements (including management fraud in connection with the falsification of documents and collusion with third parties), but auditors may be unable to accept this responsibility without a significant increase in the resources available – both legal and financial. Ultimately, society needs to decide how to allocate its resources in this respect by determining whether the benefits of obtaining additional or higher quality evidence exceed the costs involved.
- (127) The danger for standard setters in this respect is the temptation to add to the procedures required and thereby leave the impression that the likelihood of certain kinds of material

fraud not being detected in a financial statement audit is significantly reduced, when in fact a significant reduction would require a financial and legal resources of an order of magnitude greater than that currently available for financial statement audits. This situation can only lead to a widening of the expectations gap.

- (128) The issue as to how much evidence is required to support an assessment also forms the basis for the differentiation between an engagement in which reasonable assurance is obtained as opposed to an engagement in which less assurance than could reasonable be obtained is acquired (limited assurance). Here as well, the nature and extent of procedures to obtain evidence depend upon the presumptions that the practitioner is allowed to entertain.
- (129) For example, unless there are indications of a material misstatement that arise from inquiry and analytical procedures, in a review of financial statements a practitioner must essentially assume that no material fraud has occurred, since neither of these two procedures are likely to be effective in detecting material fraud – especially fraud involving management manipulating the financial statements and underlying records so that the results of analytical procedures look plausible in the circumstances. If a practitioner were not in a position to presume that no such fraud has occurred, then the performance of a review engagement does not appear to be an acceptable proposition. This line of argument suggests that the nature and extent of procedures required for the performance to obtain limited assurance – as opposed to reasonable assurance – will ultimately depend upon how such an engagement is designed in the context of user expectations and practitioner capabilities.
- (130) However, where there are indications of a material misstatement that arise from inquiry and analytical procedures in a review of financial statements, the practitioner is not longer in a position to entertain certain presumptions underlying the limitation of the engagement procedures to analysis and inquiry. In these circumstances, the acceptable presumptions are reduced to those of lesser strength, and consequently procedures of a different nature and of greater extent may be required. This conclusion can be extrapolated to all engagements where less assurance than that reasonably obtainable is acquired: if in an engagement leading to limited assurance a practitioner becomes aware that the presumptions supporting the performance of procedures leading to less than reasonable assurance are no longer acceptable, then procedures that would normally only be performed in an engagement leading to reasonable assurance may be required.
- (131) This line of argument may also apply to audits of financial statements and other assurance engagements leading to reasonable assurance. For example, if, during the course of the audit engagement, the presumptions underlying the performance of only procedures normally associated with audits of financial statements can no longer be supported, additional procedures, such as those that might be required in a forensic audit, might be required.
- (132) The nature of the presumptions that a practitioner is allowed to entertain also has an impact on the ability of a practitioner to accept engagements. For example, if the practitioner believes that certain presumptions are not applicable, then the practitioner would not be in a position to accept that engagement (e.g., if the practitioner believes that management is not of integrity, then the practitioner is unlikely to be able to rely on the presumption that the documents are genuine, which may cause the practitioner to conclude that the engagement should not be accepted). Furthermore, the nature of the presumptions that the practitioner may entertain may also affect the ability of the practitioner to change the nature of the engagement once accepted. For example, if in the

course of an audit, the practitioner determines that there is a reasonable likelihood of a material misstatement in the financial statements, the practitioner would not be justified in accepting management's request to perform a review rather than audit, since the practitioner would no longer be in a position to defend the presumptions upon which the acceptance of the review engagement is based.

- (133) In conclusion, it is difficult to provide an epistemologically sound basis for the notion that more evidence of given quality or evidence of better quality for given quantity may increase the level of assurance. However, subject to the circumstances in which an increase in the quantity of evidence will not offset insufficient quality or an improvement in the quality of evidence may not offset insufficient quantity, practitioners must develop arguments that would be sufficiently accepted by the responsible party, users, the courts and others in the profession (i.e., sufficient equivalence) that an increase in the quantity of evidence or its quality leads to an increase in assurance desired or required. In any case, the nature of evidential support in assurance engagements and its epistemological basis may form an area for fruitful future academic research.
- (134) The quality and quantity of evidence required, however, ultimately depends upon the presumptions that the practitioner is allowed to entertain in performing the engagement. Consequently, the nature and extent of procedures required to obtain evidence for engagements leading to reasonable assurance or limited assurance depends upon decisions that society make on a cost-benefit basis on the allocation of resources.

6.E. Engagement Process

- (135) An engagement process for a professional engagement as a more or less continuous course or method of operation or series of related actions undertaken by a professional entity to fulfil the legal, regulatory or ethical obligations arising from a contract, agreement, commission or appointment to provide professional services to another entity.
- (136) Since audits, reviews and other assurance services are essentially about lending credibility to assertions (which are information) about subject matter (which may itself be information) and these professional services entail gathering evidence (which is information) about these assertions, one may argue that assurance engagements represent a kind of system for conveying information – that is, an information system of some sort. While the kind of information system represented by assurance engagements is very different from a management or business information system, some of the concepts used to define management or business information systems may be applicable to assurance engagements. In any case, the insight that an assurance engagement represents a “system” does suggest that such engagements can be analysed from a systems theory perspective.
- (137) An engagement process for an assurance engagement forms a part of an assurance engagement system, which is created to meet system objectives (the objectives of an assurance engagement). The engagement process represents the means by which the engagement inputs are transformed into engagement outputs (the report issued by the practitioner to the users). An assurance engagement system operates within the engagement environment, which includes suprasystems that encompass the engagement system as a subsystem and events, conditions and other systems with which an assurance engagement system interfaces through the system boundary. Furthermore, the engagement system may contain one or more subsystems. The engagement system may be subject to quality controls, which may be in a suprasystem of the engagement system,

in another system or within a subsystem as part of the engagement process. To the extent that controls are within the engagement system itself, it can adapt its processes to prevent or detect and correct system weaknesses. These types of controls usually include feedback mechanisms.

- (138) The proposed subject matter and criteria and the potential evidence are identified as initial inputs of the engagement system, but the subsequent inputs, such as the specific matter subject to and the criteria applied in the assurance engagement as well as the available raw evidence derived therefrom are defined by the engagement process. Furthermore, in the engagement process, the criteria are applied upon the subject matter to gather the engagement evidence (obtained).
- (139) It can be demonstrated that applying a systems approach to assurance engagements may provide a useful basis for determining the basic and generic requirements for a suitable engagement system and hence a suitable engagement process for an assurance engagement.
- (140) The traditional view of engagement management as being part of the audit process appears dated. Rather, it would seem more appropriate to regard engagement management as management of the risks associated with the engagement system and its environment, where the engagement process is a part of the engagement system. In this context, the efficiency and effectiveness of the engagement process can be analysed by applying principles and techniques used in operations management – in particular with respect to process analysis and design, and process re-engineering. In particular, the concepts and techniques applicable to project management may be useful for the management of particular engagements.
- (141) An effective engagement process is predicated upon suitable engagement management and a suitable engagement system and environment. Furthermore, suitable engagement management encompasses suitable risk management of engagement system risks, which would include the establishment of suitable quality control (in supra-systems, other systems or within the engagement system) over the engagement system and process. The constituent parts of the engagement process are interdependent: consequently, if one of these parts is not valid, the entire process is probably not valid. Since the determination of the engagement objective, the identification of the criteria and subject matter and the application of the criteria to the subject matter to gain evidence to be evaluated are all part of the engagement process, the validity of the engagement process and hence the suitability of the engagement system and its surrounding environment are the critical factors in the suitability of the assertions generated by that process and the suitability of the conclusions conveyed by the practitioner's report.
- (142) The basic parts of the engagement process identified by textbooks and standard setters include client and engagement acceptance procedures, agreement of engagement terms with the client, engagement planning, acquisition of evidence, evaluation of evidence, drawing conclusions from the evaluation, and expression of these conclusions in a report. Of course, there may be considerable overlap among these parts of the engagement.
- (143) It can be demonstrated that for a given piece of evidence, cumulative assurance declines as the engagement progresses. Hence, unless corroborating evidence is obtained, a very high level of assurance would need to be obtained with respect to the original piece of evidence at each stage in the engagement process to ensure that the desired level of assurance is obtained and then conveyed so that the engagement process can be

considered suitable. These issues have not been addressed either in current standards or in auditing literature. Consequently, further academic research in this area may be required.

- (144) It can also be demonstrated that a practitioner needs to consider not only the usefulness of the criteria and the subject matter individually, but also determine the impact of their combined unusefulness. If the subject matter and the criteria are both not perfectly useful, the measurement of the evidence by applying the criteria on the subject matter will be even less useful. It should be recognised that the progress of the engagement process itself has an effect on the usefulness of the evidence obtained or conveyed. The degree of usefulness for given evidence declines as the engagement process progresses, but this problem cannot be alleviated by corroborating evidence, because if neither of the two pieces of evidence are useful, combining their usefulness will not increase their usefulness. Hence, practitioners would need to obtain more useful evidence in the early stages of the engagement process so that the decline in usefulness from the application of the following stages in the engagement process does not cause the overall conclusion conveyed to be less useful than desired. This implies that an engagement process cannot be valid unless these factors are taken into account in the determination as to whether the conclusions conveyed are sufficiently useful. This area may require further academic research.

6.F. The Implications of the Conclusions Drawn in Relation to Engagements Systems, Criteria, Subject Matter and Evidence

- (145) Information needs to meet ethical requirements and be valuable to be suitable and analysed the components of valuable information. The application of the criteria to measure, evaluate, or even identify subject matter in an assurance engagement is a property ascription and hence classification exercise. This implies that the relationship between the criteria and the subject matter is a very close one – in fact, in many cases the subject matter would not exist independently of the criteria.
- (146) Furthermore, suitability is a concept that actually relates not to the criteria and subject matter separately, but to the assertions generated by the application of the criteria to the subject matter. Consequently, one can only speak of the suitability of the criteria for given subject matter and vice-versa – not of the suitability of the subject matter or the criteria in any form of isolation. The Paper also draws the conclusion that evidence is information that supports the beneficial nature of other information (assertions), but that there are a number of interconnected evidence concepts that need to be considered. Given the nature of evidence as information, the definition of suitable information would also apply to evidence. The “auditability” of subject matter with given criteria depends upon whether sufficiently suitable evidence can be obtained.
- (147) However, the criteria, subject matter and evidence must be seen within the context of the assurance engagement system (an information system which includes the engagement input, process and output) and its environment – since these will determine whether suitable criteria, subject matter and sufficient appropriate engagement evidence can be obtained. Furthermore, the limitations of the engagement process in yielding the cumulative usefulness of the information desired to be conveyed at the desired level of cumulative assurance need to be recognised.
- (148) On this basis, the primary focus of those who set standards for assurance engagements ought to be the development of the required elements of a suitable engagement system for

given environments and the development of standards and guidance for a valid engagement process, for if these standards are appropriate, then the appropriate application of these standards to assurance engagements will yield appropriate criteria, which in turn will yield suitable subject matter in relation to these criteria, sufficient appropriate engagement evidence and reasonable conclusions therefrom that can be appropriately conveyed to users.

- (149) Overall, however, the most important implication would be that the suitability of the assertions, generated by the application of the criteria to the subject matter leading to the acquisition of evidence in the engagement process to support those assertions with a certain level of assurance, is a continuum, where the required threshold level for a particular engagement is determined by circumstances of the engagement and in light of user needs.

7. THE DETERMINANTS OF ASSURANCE, TYPES OF ASSURANCE ENGAGEMENTS AND REPORTING IMPLICATIONS

7.A. *Implications of the Assurance Concept and the Nature of the Elements of Assurance Engagements for High and Moderate Assurance Engagements*

- (150) This Paper concludes that the terms “high” and “moderate” assurance do not appear to represent useful concepts for assurance engagements that practitioners are normally asked to perform – particularly those requiring the exercise of considerable professional judgement.

7.B. *Reasonable and Limited Assurance Engagements*

- (151) The shortcomings of the high and moderate assurance concepts lead to the obvious alternative: the use of the terms “reasonable” and “limited” assurance. There are significant advantages to this approach. The most important is that the broad nature of reasonable assurance (greater than the balance of the probabilities, usually less than virtual certainty but always less than absolute assurance) obviates the need to scope out some assertions. In addition, the term limited assurance essentially signifies the fact that the assurance obtained was limited on purpose even though it could have been reasonable to obtain more assurance, if desired. Of course, an engagement to obtain and express limited assurance could only be accepted by a practitioner if the limited assurance obtained on the assertions embodied in the practitioner’s report provide valuable information to users and the practitioner is convinced that users are prepared to accept less assurance than could reasonably have been obtained with greater effort.
- (152) The primary shortcomings of the concepts “reasonable” and “limited” assurance are the flip side of their strengths: their nebulous meaning. What is reasonable in the circumstances depends upon what a society deems reasonable through the operation of its courts and through the standards set by the profession using a transparent due process that considers the public interest. Limited means no more than less than what could otherwise reasonably have been obtained. The question then arises whether the use of these words is meaningless without operationalising them by defining them in terms of actions or operations (procedures), i.e., perhaps one can differentiate between reasonable and limited assurance by the nature of extent of procedures (example: the difference between audits and reviews as noted in the previous Part).
- (153) However, such an operationalisation by means of defining detailed procedures is fraught with its own difficulties. If the definition of procedures is limited to essential procedures, which in this case, represent the criteria defining that class of engagement, and only these procedures are necessary to perform all of the engagements within that class, then while a certain class of engagements has been effectively operationalised, such an engagement cannot involve the application of professional judgement in the application of procedures. Yet, it is precisely the application of professional judgement in selecting and applying procedures that distinguishes an assurance engagement such as an audit from an agreed-upon procedures engagement or a simple mechanical exercise.

- (154) Likewise, if one were to define all of the conditions under which certain procedures would become necessary, an engagement would become a simple mechanical exercise involving tests of form (akin to legal subsumption) not requiring professional judgement rather than of substance that would require such judgement. This suggests that while certain basic principles and essential procedures can be set forth in standards for specific types of assurance engagements, this cannot be done at a generic level. Furthermore, while certain essential procedures define a particular kind of assurance engagement, no such list of procedures will ever be definitive for all circumstances encountered in practice. In this sense, the inability to conceive of a definitive list of procedures automatically leads to a “principles-based” approach to standard setting, if this term means the definition of the basic principles and essential procedures of a particular kind of assurance engagement and the context in which these are applied.
- (155) Hence, the weaknesses associated with lack of operationalisation cannot be alleviated without reducing assurance engagements to tests of form that do not require the exercise of professional judgement as opposed to tests of substance that do. The use of the concepts “reasonable” and “limited” in conjunction with assurance engagements is based on the presumption the society prefers professionals to exercise professional judgement so that they can opine on issues of substance rather than merely on issues of form.
- (156) On this basis, one can conclude that there are two kinds of assurance engagements: those in which the professional obtains reasonable assurance and those in which the professional obtains less than the assurance that could reasonably have been obtained (limited assurance) because it isn’t necessary for certain reasons, such as benefit-cost considerations. While audits and reviews of financial statements are an example of assurance engagements leading to reasonable or limited assurance, respectively, it is apparent that reviews of financial statements are very much constrained by their operationalisation into certain kinds of procedures (inquiry and analysis). Furthermore, in many jurisdictions, audits of financial statements are, in some circumstances, subject to legislative or regulatory requirements, which do not necessarily follow the general principles of assurance engagements.
- (157) For this reason, it appears sensible to segregate audits of financial statements (and in particular, statutory audits) in a conceptual way by applying different nomenclature to other assurance engagements that lead to the acquisition of reasonable assurance. This argument applies even more so to reviews of financial statements compared to assurance engagements leading to the acquisition of limited assurance, since reviews of financial statements are so constrained by their procedural perspective (inquiry and analysis).
- (158) The solution to the nomenclature for assurance engagements leading to the acquisition of reasonable assurance is simple, since in the U.S., the term “examination” is used for these kinds of engagements. There is no reason not to follow this example. However, the U.S. use of the term “review” for assurance engagements leading to the acquisition of limited assurance is not worthy of emulation, since, unlike the AICPA standards, this Paper does not propose to limit these kinds of engagements to inquiry or analytical procedures.
- (159) For lack of a better term, the term “survey” might be applied to all those engagements leading to the acquisition of limited assurance. While there will be those that will argue that in dictionaries the term “survey” is a synonym for “examination”, it should be pointed out that the word “review” suffers from the same defect. The use of the word “survey” is being suggested solely to distinguish that kind of limited assurance engagement from reviews of financial statements. Of course, other alternatives to the use of these two terms may be suggested.

- (160) Hence, given the shortcomings associated with the concepts associated with “high” and “moderate” assurance, this Paper recommends that assurance engagements ought to be divided into two kinds: those leading to the acquisition of reasonable assurance and those leading to the acquisition of limited assurance. The first could be called “examinations” to distinguish them from audits of financial statements, which are subject to considerable legislation and regulation in many jurisdictions; the second could be called “surveys” to distinguish them from reviews of financial statements, which are associated with certain kinds of procedures (i.e., analysis and inquiry).

7.C. Reporting Implications

- (161) It is apparent that a systematic analysis of reporting requirements needs to be performed – both at an academic level and by standard setters. Furthermore, it is incumbent upon standard setters to ensure that engagements leading to the acquisition of limited assurance are clearly distinguished in communication to users from those leading to reasonable assurance. Opinions or conclusions leading to the acquisition of reasonable assurance could be worded using a reference to the preponderance of the evidence (e.g. generically: “Based upon the preponderance of the evidence obtained in the performance of the engagement, in our opinion the subject matter meets the criteria for the class of subject matter defined by these criteria”).
- (162) For audits of financial statements the wording could be: “Based upon the preponderance of the evidence obtained in the performance of our audit, in our opinion the financial statements are fairly presented as defined by International Financial Reporting Standards”. Engagements leading to the acquisition of limited assurance could be distinguished from those leading to reasonable assurance by noting the kinds of procedures or specific procedures that were not performed that would otherwise have been performed for an engagement leading to reasonable assurance. In any case, the contextual meaning of the term “reasonable assurance” would need to be explained to users to help ameliorate the expectations gap. The communication of the meaning of reasonable assurance remains a major communications issue for practitioners and standard setters.
- (163) There is considerably more difficulty in defining how the opinion or conclusion itself should be worded for an engagement leading to limited assurance: it is, however, clear that the use of negatively expressed assurance (“negative assurance”) does not convey any additional information to users. This Paper does not suggest how the conclusion or opinion for a limited assurance engagement could be expressed, since this is an issue that requires further discussion and research.
- (164) To ensure some degree of comparability among reports, standard setters should set forth the basic requirements for generic assurance reports and set forth the wording expressing the opinion or conclusion as noted above, but should not attempt to provide wording to cover all kinds of assurance engagements. The definition of specific wording other than for the expression of the opinion could be addressed when standards are issued for specific kinds of assurance engagements.

8. OVERALL CONCLUSIONS AND RECOMMENDATIONS

- (165) The analyses in the Paper indicated that there is a wide divergence in standard setting for assurance engagements in key areas. Furthermore, there are a large number of important issues that have either not been addressed in the standards or have not been addressed in a consistent manner.
- (166) Some of the issues on which there does not appear to be consensus among standard setters (or even between or within standards issued by the same standard setters) and the conclusions of this Paper in these matters (included in parentheses after the identification of each contentious issue) include:
1. The fundamental distinction between assurance engagements and other types of professional engagements (the primary distinguishing characteristic of assurance engagements is the issuance of an overall conclusion or opinion by the practitioner with a certain level of assurance about particular assertions with respect to subject matter using identified criteria based upon evidence obtained in an engagement process)
 2. The role of direct engagements, where the practitioner expresses an opinion or conclusion directly upon subject matter based upon a direct evaluation of the subject matter against the identified criteria, vs. indirect engagements, where the practitioner expresses a conclusion or opinion on the reliability of or that enhances the credibility of a written assertion by the responsible party in relation to the subject matter (differentiating between direct and indirect engagements is not as useful as differentiating between engagements in which the practitioner measures the subject matter directly as opposed to engagements in which the practitioner examines measurements undertaken by the responsible party)
 3. The appropriate assurance perspective in relation to engagement risk (the appropriate assurance perspective in relation to engagement risk is that of the assurance obtained by the practitioner, whereby engagement risk becomes the mathematical complement of assurance)
 4. The meaning of the terms “high” and “moderate” assurance (these represent mutually exclusive terms across engagement types and reflect absolute rather than relative notions)
 5. The meaning of the term “reasonable assurance” (a relative term whose content depends upon the circumstances, which implies that reasonable assurance varies not only across different subject matter, criteria, evidence and engagement processes, but also across jurisdictional boundaries and within jurisdictions over time)
 6. The assurance obtained in engagements not achieving reasonable assurance (the term “limited assurance” appears to be associated with engagements in which the decision was taken to obtain less assurance than otherwise could have been reasonable to obtain)
 7. The characteristics of suitable elements of assurance engagements or assertions generated by such engagements (a synthesis of ethical considerations, information or communications theory and measurement theory appears to provide the appropriate tools with which to analyse the suitability of assertions generated by an engagement; this context leads to the application of the concept of “validity” and a redefinition and distinction of the concepts “reliability” and “credibility”;
 8. What practitioners “do” with subject matter from a logical point of view (subject matter cannot be measured directly; a practitioner measures the indicants of properties possessed by subject matter and uses the manifested outcomes of these measurements to determine whether the subject matter possesses those properties)

and manifestations thereof predicated by those properties essential to being a member of a particular class of subject matter; in essence, this implies that assurance engagements represent a property ascription and hence a classification exercise)

9. The suitability of subject matter (subject matter is deemed to be suitable when the application of given criteria to that subject matter generate suitable assertions; such assertions are suitable if they are both valuable to users and satisfy applicable ethical requirements)
 10. The suitability of criteria (criteria are deemed to be suitable when their application with respect to specific given subject matter generates suitable assertions; one cannot speak of the suitability of criteria or of subject matter in isolation)
 11. The nature of evidence (evidence is a form of information, generated by the application of the criteria on the subject matter, that contributes to the confirmation or refutation of assertions about events and circumstances in connection with that subject matter; there are different evidence concepts that can be applied in determining the nature of evidence)
 12. The nature and extent of evidence required in an assurance engagement (the evidence required in an engagement and hence the nature of an engagement depends upon the acceptable presumptions that a practitioner may entertain in performing the engagement; ultimately, the reasonableness of making these presumptions is determined by their acceptance by engagement stakeholders and by practitioner capabilities)
 13. The nature of the engagement process (an assurance engagement is an information system that conveys information from the practitioner to users; the engagement process is a part of this system; a suitable engagement process is predicated upon suitable engagement management and a suitable engagement system and environment)
 14. The role of standard setters (the primary focus of those who set standards for assurance engagements ought to be the development of the required elements for a suitable engagement system for given environments and the development of standards and guidance for suitable engagement processes in this context)
 15. The application of the concepts “high” and “moderate” assurance in assurance engagements (high and moderate assurance do not appear to represent useful concepts for assurance engagements in which practitioners are required to exercise considerable professional judgement)
 16. The appropriate categories of assurance engagements (assurance engagements ought to be categorised into those leading to the acquisition of reasonable assurance and those leading to the acquisition of limited assurance)
 17. Reporting requirements (a systematic analysis of reporting requirements for assurance engagements still needs to be performed by both academics and standard setters).
- (167) There are those who have advocated what is termed the “principles-based” approach to standard setting. The analyses in this Paper indicate that standard setting in the past has not been “principles-based” enough – possibly because the foundations underlying such an approach have not been established. On the one hand, it is apparent that there is considerable academic research that still needs to be done in the area of audit, assurance and attestation theory. On the other hand, given the problems associated with the expectations gap, which appears to be growing given recent corporate events that have impacted upon the auditing profession, standard setters ignore the theoretical foundations of their craft at their peril. This means that the cooperation between standard setters and the academic community needs to be expanded and improved.

(168) Furthermore, accounting standard setters have recognised the need for conceptual frameworks of accounting. In contrast, the auditing, attestation and assurance standard setters have not yet produced such a conceptual framework to guide and underpin their standard setting processes. Certainly, the general attestation and assurance standards issued by standards setters at an international level (IAASB) and in the U.S., Canada and Australia are a step in the right direction. Nevertheless, these do not represent conceptual frameworks as known in the accounting world. The FEE therefore recommends that the accounting profession in Europe and elsewhere undertake renewed efforts to develop and agree on an internally consistent conceptual framework for assurance engagements that will serve as a foundation for future standard setting and guidance in this area. Such a conceptual framework for principles-based standard setting ought to address:

- The levels of analysis underlying requirements in standards
- The tools required to analyze standards
- The economic basis for assurance and other related engagements
- Types of subject matter
- Types of professional engagements
- Distinguishing characteristics of assurance engagements
- Measurement vs. remeasurement issues
- The nature of assurance and its relationship to risk
- The meaning of reasonable assurance and limited assurance
- The qualitative characteristics of suitable assertions based upon information and measurement theory
- The nature of subject matter and its measurement
- The nature of criteria and their relationship to subject matter
- The nature of the assertions generated by the application of the criteria to the subject matter
- Evidence concepts underlying an assurance engagement
- The nature of corroborating evidence
- The role of presumptions underlying the performance of assurance engagements
- The engagement system, its environment and the engagement process within that system
- The requirements for a suitable engagement system
- Reporting principles.

FEE ISSUES PAPER

PRINCIPLES OF ASSURANCE:

FUNDAMENTAL THEORETICAL ISSUES WITH RESPECT TO ASSURANCE IN ASSURANCE ENGAGEMENTS

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I. INTRODUCTION

A. PURPOSE OF THE ISSUES PAPER

- (1) The primary purpose of the FEE Issues Paper “Fundamental Theoretical Issues with Respect to Assurance in Assurance Engagements” is to identify and examine, and discuss possible solutions to, the significant theoretical issues associated with the determination of assurance in assurance engagements. The Paper will assist the European accounting profession in its analysis of any changes proposed to International Standard on Auditing (ISA) 100 “Assurance Engagements” resulting from the International Auditing and Assurance Standards Board (IAASB: formerly the International Auditing Practices Committee, or IAPC) research project on moderate assurance (see Appendix II). In this respect, the Paper will in part build on the IAASB research project and propose a number of recommendations to the IAASB.
- (2) Further objectives of the Issues Paper include the identification and examination of a limited number of critical related issues within ISA 100, including reporting of assurance, and to contribute to the basis for future academic research in the area of assurance engagements. Moreover, this Paper also seeks to demonstrate to regulatory authorities, such as the EU Commission, the efforts by the European profession to establish a firm theoretical foundation for the development of useful standards and guidance in this area that reflect the public interest.

B. THE MAJOR ISSUES THAT NEED TO BE ADDRESSED IN THE ISSUES PAPER

- (3) The fundamental problem identified in the “Report on the issue from exposure drafts of the International Standard on Assurance Engagements” attached to the issuance of ISA 100 Assurance Engagements is whether a moderate assurance engagement is possible when a high assurance engagement is not. Those ascribing to the so-called interaction of variables approach believe that it is the interaction between the engagement elements – subject matter, criteria, engagement process and available evidence – that determines what level of assurance can be obtained and that therefore a moderate assurance engagement can, in principle, be carried out even though a high level of assurance cannot be obtained. Those ascribing to the so-called work effort approach believe that the interaction of subject matter, criteria and available evidence must lead to the general ability to carry out an assurance engagement (that is, a threshold must be reached). This approach precludes the acquisition of a moderate level of assurance if the acquisition of a high level of assurance is not possible.
- (4) These are fundamental theoretical issues with real-world practical implications for professional accountants carrying out assurance engagements. Ultimately, standards for assurance engagements cannot be purely theoretical documents, since a standard is meant to be applied by a practitioner in the practice of his or her profession. This does not mean that such a standard should not be as free of theoretical inconsistencies as possible. A theory represents no more than a model with which one attempts to abstract certain essential aspects of the real world so that they can be understood better.
- (5) Nevertheless, it should be recognised that (to transplant a military epigram) no theory ever survives contact with reality. Hence, to the extent that practical realities impinge upon the operation of theoretical consistency, a standard should consider such practical realities, even if this may mean departing from the overall theory. There are those who would retort that this means that the theory should be revised, but theory formulation and revision is a slow process – a process for which standard setters cannot always wait. In any case, standards should be written so that they are internally consistent from a theoretical point of view to the greatest extent possible.
- (6) Standards also reflect prevailing political realities, for in essence standards often help define the allocation of risk and responsibilities among parties. Vested interests, which may be legitimate, exert their influence upon the deliberations of standard setters. Regardless of the theoretical or practical merits of certain positions, their attempted adoption into standards without political support is doomed to failure.

- (7) In summary, there are three levels that any analysis of proposed or existing standards need to consider (and in the following order):
1. Theoretical consistency (does it make logical sense?)
 2. Practicality (can it be done in practice from a technical point of view?)
 3. Political feasibility (will it be approved?)
- (8) This Paper discusses all three levels, but as a first step, the basis for theoretical consistency needs to be established.
- (9) In this context the following questions arise that need to be considered:
- What are the theoretical fundamentals underlying the analyses undertaken (Chapter II)?
 - What are the types of subject matter with which professional accountants may become associated by means of an assurance or other engagement (Chapter III Part A)?
 - What are the different kinds of engagements leading to an association between a professional accountant and particular subject matter and what are the essential features distinguishing these kinds of engagements from one another (Chapter III Part B)?
 - Is there an economic basis for the performance of assurance engagements as opposed to other engagements (Chapter III Part C)?
 - What is the fundamental nature of the variables vs. work effort controversy (Chapter IV Part A)?
 - What is the nature of assurance and are there different levels (Chapter IV Part B)?
 - What do the terms “reasonable assurance” and “high assurance” mean in practice and theory (Chapter IV Part C)?
 - What does the term “moderate assurance” mean in relation to reasonable and high assurance (Chapter IV Part D)?
 - What do the conclusions drawn with respect to high, reasonable and moderate assurance imply for concepts associated with levels of assurance (Chapter IV Part E)?
 - What are the characteristics of the elements of assurance engagements and what is meant by suitable characteristics (Chapter V Part A)?
 - What is the nature of subject matter and its relationship with the other elements of an assurance engagement (Chapter V Part B)?
 - What is the nature of criteria and their relationship with the other elements of an assurance engagement (Chapter V Part C)?
 - What is the nature of evidence and its relationship with the other elements of an assurance engagement (Chapter V Part D)?
 - What is the nature of the engagement process and how does it relate to the other elements of an assurance engagement (Chapter V Part E)?

- What are the implications of the conclusions to the above-noted issues on the nature of assurance engagements (Chapter VI Parts A and B)?
 - What are the implications of the above-noted conclusions for reporting in assurance engagements (Chapter VI Part C)?
- (10) In answering these questions, this Paper will attempt to derive appropriate solutions to the problems identified.
- (11) Since these issues have a history in previous standard-setting and in the IAASB Study 1, it is recommended that readers of this Paper also take the opportunity to review the background material in Appendix I and the results of the IAASB Study 1 in Appendix II to place the following analyses into context.

C. SCOPE OF THE ISSUES PAPER

- (12) Based on the issues that need to be addressed the Issues Paper begins with a discussion of the theoretical fundamentals that should underlie the analyses. The Paper also includes an analysis of the types of practitioner association with subject matter, the economic basis for assurance vs. other engagements and the types of subject matter. The existence of assurance and whether it can be categorised into different levels are discussed based on the theoretical fundamentals determined previously. A review of the use of the terms “reasonable assurance” in the major common law jurisdictions and a comparison with the standards of proof or evidence required in courts of law provides a basis for defining what “reasonable” and “plausibility” mean in relation to “high” and “moderate”. Before analysing the elements of an assurance engagement, the tools used to perform the analysis (in particular, the concept of “suitability”) are developed.
- (13) The Paper then analyses the issues in relation to the subject matter, criteria, evidence and engagement process. The theoretical fundamentals determined previously are applied in these analyses. The results of these analyses leads to the implications for the determinants of levels of assurance.
- (14) The Paper also examines a number of issues flowing from the previous analyses, including reporting of levels of assurance.
- (15) While this Paper may contain many thoughts that might be original, it is not meant to be a treatise on the individual issues, nor does it purport to be a complete and consistent treatment of the issues addressed. Rather, it is an attempt to identify some of the issues involved and to derive proposals for possible solutions based on analyses presented in the discussion. It does not refer to primary sources in all cases, but builds on work already done in certain areas. It is hoped, however, that the Paper will prompt additional empirical and theoretical academic research on the issues identified as well as influence standard setting in this area.
- (16) This scope of this Paper is confined to issues in relation to standards on audits of financial statements and other assurance and attestation engagements – not issues in relation to codes of ethics. Hence, this Paper generally does not cover ethics or independence issues, which, while important, go beyond the scope of the fundamental issues being addressed. However, independence or other ethical issues are mentioned where these arise.
- (17) Since International Standards on Auditing, including ISA 100 “Assurance Engagements” are written in English, the analysis of the nomenclature used to describe different concepts is limited to those English terms and is performed in an Anglo-Saxon context. Readers from jurisdictions whose official languages are not English are cautioned that attempts to directly translate these terms

(e.g., “reasonable”, “limited assurance”, etc.) into other languages are often associated with shifts in meaning that do not do justice to the meaning of the terms in English.

II. THEORETICAL FUNDAMENTALS UNDERLYING THE ANALYSES

A. THE APPLICABILITY OF LOGICAL PRINCIPLES

- (18) Since the primary purpose of this paper is rudimentary theory and model development under practical and political constraints, a fundamental understanding of what a theory is, is a prerequisite for further analysis. Theories have been defined as "... a deductive system in which observable consequences logically follow from the conjunction of observed facts with the set of fundamental hypotheses of the system"¹, "... a coherent set of hypothetical, conceptual, and pragmatic principles forming the general frame of reference for a field of inquiry"² and "...a set of systematically interrelated concepts, definitions and propositions that are advanced to explain and predict phenomena"³. A model, on the other hand, is defined as a representation of a system that is constructed to study some aspect of that system or the system as a whole.⁴
- (19) There are three parts to a theory: the syntactical, the semantic and the pragmatic. The syntactical relate to the logical relationships, whereas the semantic relate to the relationship between words and real world phenomena (that is, definitions) and the pragmatic to the effects of the semantic part on behaviour.⁵ First, an acceptable basis for the syntactical part must be established.

Issue: Do normal logical principles apply in an analysis of assurance in assurance engagements?

- (20) It is recognised that mathematical and logical laws are not immune to revision if essential simplifications to our conceptual scheme would ensue. Nevertheless, as it is unlikely that professional accountants will be asked to measure and report on some of the quandaries of modern physics⁶, such as in relation to virtual particles or experiments verifying the Einstein-Rosen-Podolsky Paradox, there does not appear to be a real alternative to applying those logical laws, and by extension, mathematical laws, called "classical logic"⁷ that are accepted by logicians and mathematicians for the description and measurement of many phenomena. While this assertion appears to be uncontroversial, it should be

¹ V. Kam, 1990. with reference to: Richard Braithwaite, *Scientific Explanation* (Cambridge University, 1968), p. 22

² E. S. Hendriksen, p. 1
with reference to: Webster's Third New International Dictionary, Unabridged (Springfield, Mass.: G.&G. Merriam, 1961), p. 371

³ D. R. Cooper and C. W. Emory, p. 43

⁴ D. R. Cooper and C. W. Emory, p. 43

⁵ V. Kam, pp. 487-488

⁶ W.V. Quine, p. 3

⁷ G. Priest, pp. xiii - xvi

pointed out that part of the difficulties leading to the inability to come to a solution to the interaction of variables vs. the work effort approaches may be ascribed to fundamental misunderstandings of how abstract concepts work and interact and hence to deficiencies in the syntactical structure of the constructs applied.

- (21) In this context, it must be recognized that there are significant new approaches to the derivation of arguments and theories based on arguments, such as NLR (natural language reasoning)⁸, but ultimately the reasoning underlying NLR is based on classical logic.⁹
- (22) **Therefore, in conclusion, logical principles of classical logic, and by extension the laws of mathematics when relevant, should be applied in the analyses of assurance in assurance engagements.**

⁸ W.J. Smieliauskas, pp. 13-40

⁹ W.J. Smieliauskas, p. 72-78

B. ECONOMICS AND DECISION THEORY

Issue: What defines the objectives of engagements undertaken by professional accountants that should form a basis for analysis?

- (23) Because assurance engagements are undertaken with a purpose, rather than just being a theory to describe extraneous phenomena, an operational model needs to be developed, which, in describing assurance in an assurance engagement, needs to consider the objectives of such engagements. For some assurance engagements, such as statutory financial statement audits, it could be suggested that the objective is to meet legal requirements, but this kind of analysis is too shallow.
- (24) Presumably, laws leading to the establishment of legally required assurance engagements are instituted to provide benefits either to specific parties or to society as defined by the policies of the government of the day. Ultimately, then, both voluntary and statutorily required assurance engagements are intended to provide some benefits to someone (that is, someone other than the professional accountant carrying out the engagement for consideration), or the engagements would not be carried out.
- (25) This implies that the field of enquiry involved with the allocation of costs and benefits in society – economics, and in particular, microeconomics – would form the basis for the determination of the objectives of assurance engagements. To the extent that assurance engagements are performed in relation to financial information, then financial theories (financial economics) would be applicable.
- (26) Pursuant to ISA 100 an assurance engagement involves having the professional accountant report about something to interested parties, i.e., the practitioner transmits information about the subject matter of the engagement. Given the presumption that the engagement is performed to confer benefits on someone (even if the responsible party were one of the beneficiaries), it follows that the information transmitted by the reporting accountant is intended to confer benefits on the recipients (or those associated with them). This implies that principles of information economics beyond those already encapsulated in microeconomics should also supply a basis for an analysis of assurance engagements.
- (27) The transmission of economic or financial information from one party to another usually takes place because one party has information that another does not: in other words, the basis for such a transmission of economic or financial information is information asymmetry, which is a fundamental concept underlying information economics. One aspect of information asymmetry is the situation in which one or more parties with an interest in a particular subject matter with potential economic consequences have an information advantage

over other parties with an interest with potential economic consequences in that same subject matter. This situation is a type of information asymmetry termed “adverse selection”.¹⁰

- (28) For example, those that know the financial statements for a particular entity are not reliable have an information advantage with economic consequences over those that do not know whether the financial statements are reliable. This leads to conditions of adverse selection, in which those with such knowledge are less likely to invest in that entity than those without such knowledge. An auditor’s report is an example of a means (the transmission of information) by which the adverse selection caused by suboptimal economic consequences due the operation of inefficient markets can be alleviated.
- (29) Nevertheless, when information is transmitted to alleviate adverse selection, there is a presumption that this information confer benefits (other than purely psychological utility) by being useful for making decisions. Hence, that field of enquiry within information economics covering the basis for making decisions using information – decision theory – is particularly applicable to an analysis of assurance engagements.
- (30) Another aspect of information asymmetry is moral hazard, which refers to the situation in which one party with an interest with economic consequences in a subject matter can observe its actions with respect to that subject matter but other parties cannot.¹¹ The classic example of this is medical advice from a physician, in which the layman may need to rely on advice that an expensive treatment or operation is necessary without being in a position (without a second opinion) to determine whether the diagnosis and the proposed treatment is appropriate. Another example is the situation when users of auditors’ reports are not in a position to determine whether auditors perform audits of sufficient quality, but auditors may not have an interest in performing audits of sufficient quality in certain circumstances without other controls (ethics, auditing and internal and external quality control standards, and legal liability).
- (31) In other words, there may be a conflict of interest between different parties to an assurance engagement. In these circumstances a branch of information economics called “game theory” can be applied, which models the interaction between parties when there are economic consequences to their common interest in a subject matter. A branch of game theory that studies the design of contracts to motivate a rational agent to act on behalf of the principal when the agent’s interests would otherwise conflict with those of the principal is called “agency theory”.¹² Agency theory would be useful in designing terms of

¹⁰ W. R. Scott, p. 3

¹¹ W. R. Scott, p. 4

¹² W. R. Scott, pp. 281, 287

engagement and the framework surrounding such terms for assurance engagements.

- (32) There have been attempts to base a framework of assurance theory on lines other than just economic theory, notably by W.J. Smieliauskas in Canada. However, even these attempts recognize their reliance on economic argument and that extensive literature using economic arguments, such as portfolio theory, rational expectations, information economics, agency theory, etc. to model the audit process exists.¹³
- (33) **In conclusion, information economics (including microeconomics and financial economics to the extent relevant) – and in particular, decision theory together with game theory (including agency theory) should form the basis for the determination of the objectives of assurance engagements and hence assurance.**

¹³ W.J. Smieliauskas, p. 17

C. THE METAPHYSICAL AND EPISTEMOLOGICAL BASIS AND MEASUREMENT THEORY

Issue: What forms the basis for the analyses of the subject matter, evidence and engagement process?

- (34) Pursuant to ISA 100 assurance engagements involve the evaluation of subject matter against suitable criteria after having gathered evidence on the subject matter. In other words, at a fundamental level, such an engagement involves a process by which a practitioner attempts to capture certain aspects of reality. Since metaphysics is concerned primarily with the fundamental structure of reality as a whole¹⁴, to the extent that aspects of that structure are involved, metaphysical concepts apply.
- (35) Since epistemology is defined as a branch of philosophy that investigates critically the nature, grounds, limits, criteria, or validity of human knowledge,¹⁵ to the extent that evidence is gathered on the subject matter to obtain knowledge about that subject matter, epistemological considerations apply. These epistemological considerations lead naturally to measurement theory, which represents the methodological foundation of measurement¹⁶. Therefore, to the extent that the engagement is a critical process in which subject matter is measured against criteria, measurement theory in its broadest sense applies.
- (36) With respect to an assurance engagement in which subject matter (ontologically speaking, particulars that are either concrete, such as things or events, or abstract, such as sets or propositions¹⁷) is evaluated, metaphysically speaking, subject matter in itself cannot be known, but only its qualities or properties, whether intrinsic or relational, essential or accidental.¹⁸ Since, from an epistemological point of view, these properties can only become known by means of evidence that these properties or attributes leave behind, our knowledge of the subject matter is always indirect and based only on evidence of certain properties of that subject matter.
- (37) The link between epistemology and measurement theory in this case is the common view to the measurement of properties or attributes to obtain knowledge about the subject matter. Measurement theory has its roots in the natural sciences, but the bases of measurement theory for the social sciences were developed by Torgerson of the Massachusetts Institute of Technology (MIT) in 1958¹⁹ and J. Pfanzagl in Germany in 1971.²⁰ Torgerson defines

¹⁴ E.J. Lowe, pp. 2-3

¹⁵ *Funk & Wagnalls Standard College Dictionary*, 1976, p. 446

¹⁶ J. Pfanzagl, p. 9

¹⁷ E.J. Lowe, pp. 15-16

¹⁸ E.J. Lowe, pp. 41-42, 44-46, 96-99

¹⁹ W.S. Torgerson

measurement as pertaining to properties of objects, and not objects themselves (note the metaphysical and epistemological influence) and that it involves the assignment of numbers to systems to represent that property.²¹ Note that in this description the assignment of numbers does not necessarily represent a particular scale, and could in fact be a nominal scale²² for qualitative characteristics solely to categorise these.²³ The characteristics of sound measurement (validity, reliability, stability, equivalence and internal consistency, practicality) should also be applied in any measurement as part of an engagement process.²⁴

- (38) **In conclusion, a metaphysical and epistemological basis and measurement theory should be applied in the analyses of subject matter, criteria, evidence and engagement process.**

²⁰ J. Pfanzagl

²¹ W. S. Torgerson, p. 14

²² J. Pfanzagl, p. 28

²³ R.C. Pfaffenberger and J.H. Patterson, p. 662

²⁴ D.R. Cooper and C.W. Emory, pp. 148-156

D. INFORMATION AND ACCOUNTING THEORY

Issue: What should be used as a basis to evaluate the usefulness of evidence?

- (39) There are various definitions of evidence within the context of assurance engagements. The broadest definition was proposed by Mautz and Sharaf as being “all influences on the mind of the auditor”.²⁵ Other approaches to the definition of evidence include that of Smieliauskas, which defines evidence as “the premises in the argument supporting the audit opinion”.²⁶ For the purposes of this Paper, however, we will use the following operational definition until the nature of evidence is investigated in a subsequent Chapter: Evidence is any information by which assertions (about properties of subject matter, criteria, engagement processes or other evidence) are sought to be confirmed or refuted.²⁷ This definition will be discussed and revised in Chapter V. Nevertheless, the question arises how the usefulness of evidence should be evaluated.
- (40) Since evidence is information, information theory should provide a basis for such an evaluation. In information theory, the term “knowledge” is used to describe one’s understanding of reality. Data are defined as language, mathematical, or other symbolic surrogates which are generally agreed to represent people, objects, events and concepts, whereas information, on the other hand, is the result of modelling, formatting, organising, or converting data in a way that increases the level of knowledge for the recipient.²⁸ Hence, the purpose of information is to increase the level of knowledge of its recipient.²⁹
- (41) In the determination of costs and value of information in information theory, a link is established to decision theory. The value of information depends on its attributes. Information theory generally recognizes ten attributes: accessibility, comprehensiveness, accuracy, appropriateness, timeliness, clarity, flexibility, verifiability, freedom from bias – and quantifiability.³⁰ These will be discussed further in Chapter V.
- (42) Accounting theory has developed sophisticated conceptual frameworks with respect to the decision usefulness of information (that is, accounting information) based on decision theory that may be of use in the context of an

²⁵ see W.J. Smieliauskas, p. 32 with reference to: R.K. Mautz and H.A. Sharaf, *The Philosophy of Auditing* (American Accounting Association: Sarasota, Florida, 1961), p. 110

²⁶ W.J. Smieliauskas, p. 33

²⁷ AGN, Audit Guide, (AGN International Ltd.: London, 1997), pp. 18-20

²⁸ Burch et al., p. 4

²⁹ Burch et al., p. 6

³⁰ Burch et al. pp. 16-19

analysis of assurance in assurance engagements. In particular, the FASB Statement of Financial Accounting Concepts No. 2 Qualitative Characteristics of Accounting Information³¹ and the Qualitative Characteristics of Financial Statements in the IAS Conceptual Framework³² provide a useful basis for the evaluation of information and hence evidence.

- (43) **In conclusion, the usefulness of evidence should be evaluated based on information theory and, to the extent relevant, the qualitative characteristics of accounting information as defined in accounting theory.**

³¹ FASB, *Original Pronouncements 2001/2002 Edition. Statement of Financial Accounting Concepts No. 2: Qualitative Characteristics of Accounting Information (SFAC No. 2 – CON 2)*, (John Wiley & Sons Inc.: New York, 2001), CON 2.31

³² IASB, *International Accounting Standards 2002* (IASB: London, 2002), *IASB Framework for the Preparation and Presentation of Financial Statements*, IAS F-13 to F-18.

E. AUDITING THEORY

Issue: Can auditing theory be used to evaluate assurance in assurance engagements?

- (44) Assurance engagements and related services performed by professional accountants on subject matter other than financial statements are closely related to the performance of those engagements on financial statements. In fact, as the background review of standard setting developments in Appendix I demonstrates, attestation and assurance standards issued borrowed heavily – both in content and structure – from previously issued auditing standards. This is a reasonable approach, since, by definition, audits (and reviews) of financial statements *are* assurance engagements and the application of their principles to other assurance engagements represents a logical extension. Consequently, it appears reasonable to extend the application of the theory upon which financial statements audits are based to any analysis of assurance engagements performed on other subject matter to the extent relevant.
- (45) An analogous application of auditing theory to an analysis of assurance engagements would appear to be appropriate for such issues as process, quality control, documentation, fraud and error, planning, materiality, risk assessments and internal control, evidence, using the work of experts, and reporting. The problem in this respect is whether a comprehensive auditing theory supporting the required analysis of assurance exists.
- (46) First, based on the definition of a theory described in Part A of this chapter, an auditing theory would have to cover syntactical, semantic and pragmatic aspects. To develop standards that go beyond current practice (i.e., beyond standards based on positive auditing theories) by defining what is theoretically possible and permissible (i.e., the variables vs. work effort approach) a normative³³ auditing theory is required for the development of a working model for assurance in assurance engagements.
- (47) While attempts to formulate a comprehensive auditing theory have been made by Mautz and Sharaf³⁴ and D. Flint³⁵ and that a novel approach to developing a framework for assurance engagements was presented by W.J. Smieliauskas, it appears to be recognised that the theoretical basis of auditing has not yet fully matured. Michael Power remarks “At this point the deep epistemological

³³ V. Kam, pp. 490-492

³⁴ R. J. Anderson, p. 138.

with reference to: R.K. Mautz and H.A. Sharaf, *The Philosophy of Auditing* (American Accounting Association: Sarasota, Florida, 1961)

³⁵ I. Gray & S. Manson, p. 23

with reference to: D. Flint, *Philosophy and Principles of Auditing: An Introduction* (McMillan Education Ltd.: Basingstoke, 1988)

obscurity of auditing becomes evident, despite the mass of technical procedures available to the auditor. What is the nature of assurance given by audits?³⁶ Furthermore, the fact that the IAASB initiated the research project on moderate assurance (Study 1) is an indication that such theories and models are not yet sufficiently complete: one might argue that auditing theory is still in its early stages of development. Consequently, while this Paper should draw on the theoretical work done by academics on auditing, it should be recognised that without additional analysis this theoretical work will not yield the indications for solutions to the problems identified in the description of the scope of the Paper.

- (48) **In conclusion, developments in auditing and assurance theory should be taken into account in the analyses in this Paper, but that it should also be recognised that auditing and assurance theory in its current state of development will not provide the solutions to the issues identified.**

³⁶ M. Power, p. 28

F. IMPINGING LEGAL CONSEQUENCES

Issue: Does the applicable legal framework affect the analysis?

- (49) Assurance engagements, especially audits of financial statements, are not performed in a legal vacuum. The fundamental questions that need to be asked are whether the legal framework affects how audits are performed in practice and whether the legal framework affects how audits should be performed – that is, does the legal framework affect audit standard setting. These questions then lead to the issue noted above: should the analysis in this Paper also take the effects of legal frameworks into account?
- (50) The question of whether a legal framework affects how audits are performed in practice is an empirical one that cannot be answered as part of this Paper. There also appears to be a dearth of empirical research in this area. Consequently, it will be presumed that legal frameworks do affect how audits are performed in practice. This presumption appears intuitive: for example, if auditors were to suffer no legal consequences from the negligent performance of an audit, it is probably more likely that they would be less diligent in performing audits.
- (51) Legal frameworks might affect auditing and therefore assurance standards in different ways. For assurance engagements that are legally required, for example, standards may in part represent an interpretation of legal requirements. Furthermore, as was noted in Section 6 of Appendix I, the nature of the legal framework may have an impact on the way in which standards are developed. For example, it was noted that in a civil law jurisdiction like Germany a teleological interpretation, analogous application or extrapolation (which are the primary means by which the courts in Germany apply existing law to new situations not covered by statute) of existing auditing standards for financial statement audits may be used to derive additional guidance for the performance of assurance engagements on other subject matter and thereby obviate the need for additional comprehensive stand-alone assurance standards (see Appendix I Section 6).
- (52) Another example of how legal frameworks affect auditing standards is their impact on the required degree of professional scepticism. For example, in Canada the courts have recognised the auditor's right to a presumption of management's good faith³⁷, whereas in most other jurisdictions auditors may presume neither unquestioned honesty nor dishonesty.³⁸ The nature of this

³⁷ CICA, *Handbook Volume I Assurance Recommendations*. (CICA: Toronto, 2001) Section 5025.01-.07

³⁸ IFAC, *IFAC Handbook. Auditing and Ethics Pronouncements*. (IFAC: New York, 2001) ISA 100.34

presumption may have an effect on how the audit is directed towards the detection of intentional rather than unintentional misstatements.

- (53) **In conclusion, given the effects of legal frameworks on the performance of audits and audit standard setting, the effects of legal frameworks on the operation of assurance within an assurance engagement be examined briefly.**

III. PRACTITIONERS' ASSOCIATION WITH SUBJECT MATTER

A. TYPES OF SUBJECT MATTER

Issue: What are the types of subject matter with which professional accountants may become associated by means of an assurance or other engagement?

- (54) Professional accountants are traditionally associated with work that they perform on financial statements and other financial information (such as prospective financial information). In recent years, however, the scope of the work of professional accountants has expanded to include engagements relating to environmental and sustainability information, compliance with legal or regulatory requirements or agreements, etc. At this stage it is useful to review and categorise the various kinds of subject matter in general terms with which a professional accountant may become associated.
- (55) Both financial statements and prospective financial information are financial information. On the other hand, sustainability and environmental reporting and social information are nonfinancial information. From a professional accountant's perspective, subject matter may be categorised and subcategorised as noted on the following page (either at a point in time or covering a period of time).
- (56) Of course, there are other perspectives by which subject matter might be characterised – in particular, from an ontological point of view. A common but controversial ontological classification divides entities into universals (properties and relations) and particulars. The particulars may then be divided into the concrete, such as things and events, and the abstract, such as sets and propositions.³⁹ Nevertheless, for the purposes of this Paper, it may be more useful to use an accountancy perspective, because this may illuminate certain aspects of assurance engagements by means of their analysis (see Part B Section 4).
- (57) **The categorisation of subject matter on the following page on the basis of a professional accountancy perspective demonstrates that there is a fundamental dichotomy between two categories of subject matter: subject matter that is information or data vs. other subject matter. This distinction will gain importance in the analysis of types of assurance engagements.**

³⁹ E.J. Lowe, pp. 15-16

Information or Data

Financial Information or Data

Financial Statements

Prospective Financial Information

Historical Financial Information or Data

Pro Forma Financial Information

Management Reports (Management Discussion and Analysis)

Financial Analyses

Other Financial Information or Data

Nonfinancial Information or Data

Sustainability Information or Data

Environmental Information or Data

Economic Information or Data

Social Information or Data

Prospective Information

Historical Information or Data

Analyses

Statistical Information or Data

Information or Data about Physical Characteristics

Other Nonfinancial Information or Data

Other Subject Matter

Systems and Processes

Corporate Governance

Risk Management

Controls

Management Policies

Human Resources Practices

Other Systems and Processes

Behaviour

Corporate Governance

Risk Management

Controls

Management Activities

Human Resources Practices

Other Behaviour

Physical Characteristics

Other Subject Matter not Information

B. TYPES OF ASSOCIATION

1. ASSOCIATION

Issue: How does a professional accountant become associated with subject matter?

- (58) Professional accountants in public practice (“practitioners”) may become associated with subject matter by various means. Association in this sense will be defined as the term generally used within the profession to indicate a practitioner’s involvement with subject matter. Such association may arise from any one or combination of the following means:
1. when the practitioner associates himself or herself by some action on his or her part with subject matter or with an entity that is in some way associated with that subject matter
 2. when an entity or another party has indicated in some way without the practitioner’s knowledge or consent that the practitioner was involved with the subject matter
 3. when a third party assumes that a practitioner is involved with subject matter
- (59) While a practitioner has no control over third party assumptions about his or her involvement with particular subject matter or how others represent his or her involvement without his or her knowledge or consent, the practitioner can control how he or she associates himself or herself with the subject matter.
- (60) A practitioner associates himself or herself with subject matter when he or she:
1. performs services in relation to that subject matter or in relation to an entity that is in some way associated with that subject matter, or
 2. consents to the use of his or her name in connection with that subject matter when the nature and context of the use of the practitioner’s name indicates that the practitioner has performed services in relation to that subject matter.
- (61) Under the codes of professional conduct prevalent in most jurisdictions, it would not be permissible for the practitioner to consent to the use of his or her name in connection with subject matter when the nature and context of the use of the practitioner’s name indicates that the practitioner has performed services in relation to that subject matter, even though no such services have been performed by the practitioner. Consequently, under the rules of ethics, when a practitioner associates himself or herself with subject matter there is a presumption that the practitioner has performed services in relation to that subject matter.

- (62) The degree of responsibility that the practitioner assumes when he or she associates himself or herself with subject matter depends on the nature and extent of the practitioner's involvement with that subject matter⁴⁰ – that is, it depends on the nature and extent of the services provided by the practitioner in relation to the subject matter. In the vast majority of cases, the provision of such services is predicated upon the existence of an engagement of the practitioner by a particular party. Used in this sense, the term engagement means a contract, commission or appointment to provide such services.
- (63) **Hence, while there are a number of means by which a practitioner can become associated with subject matter, it is proposed that the analysis focus on association due to the provision of services as part of a professional engagement.**

2. PROFESSIONAL ENGAGEMENTS

Issue: What are the different kinds of engagements leading to an association between a professional accountant and particular subject matter and what are the essential features distinguishing these kinds of engagements from one another?

- (64) In the analysis of engagement types in the following sections, use is made of the engagement concepts provided in ISA 100 and the attestation and assurance standards by the standard setters in the USA, Canada, Australia. Because this Paper attempts to identify the substance of the nature of the engagements, the nomenclature describing the engagements will differ somewhat from those used in other standards.
- (65) Professional accountants are generally engaged to provide professional services. Nevertheless, this does not mean that professional accountants are necessarily limited to performing only professional engagements unless such limitations have been imposed by law or by compulsory codes of professional conduct. The other kinds of engagements that practitioners may perform may be termed non-professional engagements. These include engagements to provide commercial services or gratis non-professional services. The term “non-professional engagements” refers to engagements not requiring the professional judgement of the practitioner such as photocopying services, etc.
- (66) Professional engagements, on the other hand, involve the provision of services requiring the exercise of professional judgement by the practitioner. Professional engagements can be divided into three types: advisory or

⁴⁰ The concepts in this section were adapted from CICA 2001, *Handbook Vol. I*, Section 5020.01 -.06

consulting engagements, constructive engagements and attestation engagements.

- (67) In purely advisory or consulting engagements the practitioner provides professional advice in relation to subject matter, but is not engaged in neither constructive activities in relation to nor the provision of an attestation report on the subject matter. A report containing an identification of issues and their analysis, and conclusions or professional opinions and recommendations with respect to the issues in relation to the subject matter may often be issued as part of an advisory engagement. However, an advisory or consulting engagement is not primarily directed towards either the performance of procedures on the subject matter to gain evidence to support the findings, nor the reporting of findings resulting from the evidence derived from the results of those procedures. Hence, in a purely advisory or consulting engagement (e.g., tax advice) the practitioner provides professional advice in relation to subject matter and may provide recommendations about alternative courses of action, but is neither engaged in constructive activities in relation to nor the provision of an evidence-based attestation report on the subject matter.
- (68) Of course, many engagements currently regarded as consulting or advisory services in fact include the primary elements of an attestation engagement as defined below. In these cases, it is important to recognise that the service in question comprises a consulting or advisory engagement and an attestation engagement (i.e., an attestation engagement may be embedded within the consulting or advisory engagement). However, this does not change the nature of the embedded attestation engagement as an attestation engagement. Consequently, the attestation within the consulting engagement remains subject to standards for attestation engagements within these circumstances. Of course, there may be independence considerations that could prevent or limit the ability of a firm or individual within a firm to provide both a consulting or advisory and attestation engagement for the same client.
- (69) In a constructive engagement, the practitioner designs or constructs the subject matter; or designs or implements the subject matter or executes the operation thereof. Examples of constructive engagements include the design of an IT hardware configuration or its construction, the design of an accounting system or its implementation, or the execution of bookkeeping functions by the practitioner. In relation to financial statements, for example, constructive engagements would include the design of a chart of accounts, of their summarisation into financial statement items and of the financial statements themselves, or the compilation of financial information or preparation of financial statements from information provided by the client's accounting system.
- (70) To the extent that constructive engagements improve the quality or context of information for decision makers, such engagements are "assurance services" as defined by the AICPA (see Section 4 of Appendix I). While a report may be issued as part of a constructive engagement (e.g., a compilation report for a

compilation of financial information), the reports generally serve to either delineate the nature of the constructive service or to refer to special issues that have arisen during the engagement, rather than to provide an opinion on the subject matter. It is true that, given the need to apply due care in the performance of a constructive engagement, the practitioner implicitly provides an opinion that what he has constructed meets the terms of the engagement. However, the emphasis in this case is on satisfying the terms of the engagement through the construction rather than on the provision of an opinion about the construction.

- (71) In contrast, in an attestation engagement, the issuance of the report itself is the objective and hence an expression of the engagement performed. In an attestation engagement, the practitioner is engaged to issue a report of findings in relation to subject matter based on the evidence obtained from procedures that the practitioner has performed in relation to that subject matter. This kind of engagement would also meet the AICPA definition of an assurance service (see Section 4 of Appendix I).
- (72) **In conclusion, it should be recognised that there may be engagements representing various combinations of these three kinds of professional engagement (advisory, constructive and attestation), but that does not affect the nature of the individual engagement type within the combined engagement. Furthermore, there may be legal or professional requirements limiting or prohibiting the combination of certain kinds of engagements (e.g., the preparation and audit of financial statements).**

3. ASSURANCE ENGAGEMENTS

Issue: How should assurance engagements be distinguished from other kinds of engagements?

- (73) Attestation engagements can be categorised as either assurance or agreed-upon procedures engagements. In an agreed-upon procedures engagement the practitioner is engaged by the client to perform specific procedures in relation to the subject matter and to issue a report describing these procedures and the related factual findings resulting from the performance of these procedures without drawing conclusions or forming an opinion. In a sense, the practitioner is attesting the factual findings arising from the performance of the procedures.
- (74) In an assurance engagement, on the other hand, in essence the practitioner evaluates subject matter against identified suitable criteria and expresses a conclusion (an “opinion”) as to whether the subject matter conforms to the specified criteria. While there are other elements of an assurance engagement, some of which will be examined more closely in the Paper in the following

chapters, the definition above suffices to distinguish an assurance from an agreed-upon procedures engagement.

- (75) The important characteristics distinguishing an assurance engagement from an agreed-upon procedures engagement are: 1. the application of criteria in the evaluation of the subject matter, and 2. the expression of an opinion with a certain level of assurance on the conformity of the subject matter with those criteria. Implicit in this definition is that the practitioner perform procedures in applying the criteria in the evaluation of the subject matter (or to gather evidence for the evaluation) to form the basis for the overall conclusion or opinion.
- (76) A number of standards on assurance engagements also require a three party relationship (the practitioner, the responsible party and the intended user of the assurance). These include ISA 100,⁴¹ and CICA Handbook Section 5025 (which requires a three-party relationship).⁴² However, the AICPA Attestation Standards only require the practitioner not to be the responsible party.⁴³ Hence, whether or not such assurance engagements are limited to three party engagements is a professional and market positioning decision, not one that is fundamental to the nature of an assurance engagement.
- (77) **In summary an assurance engagement can be distinguished from other engagements by the following:**
- **the practitioner exercises professional judgement**
 - **the practitioner issues a report of findings in relation to subject matter based on procedures that the practitioner has performed to obtain evidence in relation to that subject matter**
 - **the findings reported represent an opinion or conclusion with a certain level of assurance on the conformity of the subject matter with identified suitable criteria.**

4. DIRECT VS. INDIRECT ENGAGEMENTS

Issue: What are the implications of direct and indirect engagements on the performance of assurance engagements?

- (78) Direct assurance engagements are commonly defined as those in which the practitioner expresses a conclusion or an opinion directly on the subject matter based on a direct evaluation of the subject matter against suitable criteria

⁴¹ IFAC 2001, ISA 100.08

⁴² CICA 2001, *Handbook Vol. I*, Section 5025.01-.07

⁴³ AICPA, *Codification of Statements on Auditing Standards (Including Statements on Standards for Attestation Engagements)*, Nos. 1 to 93. (AICPA: New York, 2001), AT §100.01-.05. and AT §101.01

regardless of whether the responsible party has made a written assertion on the subject matter. In contrast, indirect assurance engagements (also called attest engagements: this term is not used in this Paper because it may lead to confusion between an attestation and attest engagement) are commonly defined as those in which the practitioner expresses a conclusion or opinion on the reliability of or that enhances the credibility of a written assertion by the responsible party.

- (79) From a logical point of view (that is, when applying the normal logical concepts accepted by logicians for the description of most phenomena as described in Part A of Chapter II) the difference between a direct and indirect assurance engagement appears to be a shift in the definition of the subject matter. In an indirect assurance engagement, the written assertion is, from a logical point of view, a statement that may be either true or false. The object of the assurance engagement would be to determine the truth or falsity of that statement with a certain level of assurance. Hence, it appears to be the statement itself (the written assertion) that is the subject matter being evaluated.
- (80) Important in this respect is the fact that a statement can only represent information or data – not other types of subject matter (see Part A of this chapter) – about “other subject matter” or other information and data in relation to criteria. For example, the statement “The car is blue” represents data or information about “other subject matter” (the car) in relation to the criterion (the colour blue). An assurance engagement in this case would involve the collection of evidence (inspection and observation) of the car to determine the truth or falsity of the subject matter, the statement “the car is blue”.
- (81) In a direct assurance engagement, on the other hand, no such written assertion and hence no explicit statement is available, unless the subject matter itself is information or data, which by definition contain statements or assertions relating to other information or data or “other subject matter”. For subject matter other than information or data, the practitioner would apply the criteria to the subject matter directly to determine whether the subject matter meets these criteria.
- (82) However, a closer examination of the direct vs. indirect reporting engagements issue indicates that this distinction is in fact arbitrary and hence not useful in practice. As AT §100.18 pointed out, an assertion is generated by the criteria applied.⁴⁴ Seen from this angle, explicit assertions are no more than an expression of the application of specific criteria to subject matter. Hence, even if no explicit assertion is made, the application of criteria in the evaluation of subject matter generates the assessment of implicit assertions by virtue of the nature of the subject matter and criteria. Furthermore, once the reporting practitioner reports in detail on the truth or falsity of specific implicit assertions in his or her report, the assertions are made explicit. Consequently, the fact that in

⁴⁴ AICPA 2001, AT §100.18

one engagement an explicit assertion is made by a responsible party and in another the assertion is implicit does not lead to a fundamental change in the substance of the engagements, for by accepting the application of particular criteria in the evaluation of the subject matter, the engaging party is also accepting the assertions generated by the application of the criteria.

- (83) As a result, it is apparent that it is not the subject matter that is evaluated against certain criteria, but rather, as was acknowledged in AT §100.14-.16 the assertions (whether explicit or implicit) embodied in the subject matter upon the application of the criteria.⁴⁵
- (84) Two arresting simple examples will demonstrate that there is no fundamental difference in substance between direct and indirect engagements. In an audit of financial statements, the auditor examines whether the assertions embodied in the financial statements conform to particular criteria (the applicable financial reporting framework). An audit does not require the separate statement by management that the financial statements are in accordance with the applicable financial reporting framework, since their conformity with individual criteria and hence individual assertions are implicit in the explicit assertions represented by the presentations and disclosures in the financial statements. However, the auditor's opinion expresses the conformity of the financial statements with the financial reporting framework (the criteria), even if management did not make such a statement.
- (85) On the other hand, in an examination of the effectiveness of an internal control system, the party responsible for the internal control system may not have made an explicit assertion as to its effectiveness, but will have agreed to effectiveness criteria applied by the practitioner and thereby implicitly agreed to a series of assertions in relation thereto. Nevertheless, in the practitioner's report, the criteria and hence the conformity of the internal control system with these criteria – the assertions – will be made explicit.
- (86) The lack of a distinction in substance between a direct and indirect engagement has implications for objectivity requirements and hence the so-called self-review problem, which in turn leads to independence considerations. We will use the two examples above to illustrate the problem.
- (87) When management draws up financial statements, it “measures” circumstances, transactions and events using certain tools (the criteria in the financial reporting framework and the accounting system designed to capture and process data in accordance with these criteria) and describes these “measurements” in the financial statements, which contain implicit assertions arising from these “measurements” using the criteria. When the auditor audits the financial statements prepared by management, there is only a limited risk of

⁴⁵ AICPA 2001, AT §100.14-.17

self-review (arising primarily from proposed adjusting entries), since the auditor did not prepare the financial statements (the assertions) being audited.

- (88) In contrast, when a practitioner examines the effectiveness of an internal control system, it is the practitioner that “measures” circumstances and events using certain tools (the agreed-upon criteria for effectiveness and the examination process) to “measure” the implicit assertions arising from the application of the criteria to the internal control system. The practitioner then draws up a report in which these assertions about the internal control system arising from his or her measurements are described. Moreover, the practitioner also expresses an opinion on whether these assertions are in accordance with the applicable criteria. In this case, the opinion is in relation to assertions resulting from measurements that the practitioner had undertaken him- or herself and there may be a question as to whether “self-review” has taken place.
- (89) The fundamental issue then, is not whether a responsible party has made an explicit assertion, but rather whether or not the responsible party has measured the subject matter using the same criteria applied by the practitioner and thereby made either explicit or implicit assertions. From the practitioner's point of view there is fundamentally no difference between an engagement in which the responsible party has made an explicit assertion without having undertaken the measurements to support that assertion and an engagement in which the responsible party has performed no measurements and made no assertions . Both of these engagements are, however, substantially different from those engagements in which the practitioner examines whether the measurements by the responsible party actually support the assertions (whether explicit or implicit).
- (90) Of course, it should be recognised that if the responsible party undertook the effort to measure the subject matter, it is unlikely that the primary conclusions drawn from these measurements and hence the major assertions made in this respect by the responsible party would have remained substantially implicit. Consequently, the issue usually boils down to the determination as to whether or not explicit assertions made by the responsible party have been appropriately supported by measurements made by or on behalf of the responsible party. Furthermore, it is also unlikely that, in the absence of explicit assertions in some form, the responsible party would have undertaken measurements in relation to those assertions.
- (91) AT §100.86 recognized that there may be circumstances in which an assertion of another party was developed with the practitioner's advice and assistance as long as the assertion is dependent upon the actions, plans or assumptions of that other party who is in a position to have an informed judgement about its accuracy. ⁴⁶ AT §101.108 from the subsequent attest standard, in contrast,

⁴⁶ AICPA 2001, AT §100.87

suggests that subject matter or an assertion developed with the practitioner's advice and assistance may be the subject of an attest engagement as long as the responsible party accepts and acknowledges responsibility for the subject matter or assertion.⁴⁷ In other words, both the previous and currently applicable AICPA standards accepted self-review under certain circumstances.

- (92) There may, of course, be circumstances leading to the conclusion that self-review in this sense is acceptable for certain kinds of engagements and unacceptable for others, but this is an issue that requires more research and that goes beyond the scope of this Paper. The FEE Paper "The Conceptual Approach to Protecting Auditor Independence" issued in February 2001 addresses the basic issues of independence, including fundamental principles of independence, threats thereto and safeguards⁴⁸. In any case, whether or not self-review is acceptable in certain circumstances is a controversial issue – at a technical, practical and political level.
- (93) **Given these difficulties, it is recommended that the analysis concentrate on those kinds of engagements in which self-review is not a problem – that is, it will be presumed that a responsible party has undertaken measurements of the subject matter using certain criteria that lead to explicit or implicit assertions that the practitioner will evaluate against those criteria. Furthermore, it is recommended the division of assurance engagements into direct vs. indirect engagements be reviewed and reconsidered and the use of a dichotomy based on measurement vs. remeasurement be considered by standard setters.**

⁴⁷ AICPA 2001, AT §101.108

⁴⁸ Fédération des Experts Comptables Européens, *The Conceptual Approach to Protecting Auditor Independence* (FEE: Brussels, 2001), pp. 5-6.

C. THE ECONOMIC BASIS FOR ASSURANCE VS. OTHER ENGAGEMENTS

Issue: Why are assurance engagements rather than other engagements (agreed-upon procedures engagements, for example) performed?

- (94) At this stage it may be useful to ask why assurance engagements rather than other types of engagements, such as agreed-upon procedures engagements, are performed. In Part B of Chapter II, the conclusion was drawn that information economics, and in particular, decision theory and agency theory, can help form the basis upon which the objectives of engagements undertaken by professional accountants that transmit information to users may be determined. Furthermore, it was noted that such engagements involve the reduction of information asymmetry, whether in the form of adverse selection or moral hazard.
- (95) Moreover, it was noted that the adverse selection form of information asymmetry is associated with decision theory – that is, the idea that the reduction of the adverse selection form of information asymmetry is desirable because it improves decision-making. Under decision theory, information has value for decision making when decision-making takes place under conditions of uncertainty or risk, as opposed to decision making with certainty, when the decision maker has full knowledge of the state of nature. When making decisions under uncertainty, the decision maker has no prior information about the true state of nature (no knowledge), whereas when making decisions under risk, the decision maker is in a position to assess a probability distribution for various states of nature that may be true or occur (imperfect knowledge).⁴⁹
- (96) A decision maker may have different strategies for dealing with decisions under conditions of risk, but one important strategy is the acquisition of more information. From an information economics point of view, the acquisition of more information is desirable if the net value (that is the potential benefits less the cost of the information) is greater than the expected cost of a suboptimal decision (what is optimal is, of course, determined by the strategy of the decisions maker, i.e., whether, for example, he or she is maximizing profits, **satisficing**, maximizing the likelihood of the minimum loss, etc.). In any case, the potential benefits of the information relate to more information about the probability distribution for various states of nature that may be true or occur, i.e., more information about risk.

⁴⁹ R. C. Pfaffenberger & J. H. Patterson, pp. 694-695

- (97) In other words, a professional engagement that transmits information to users that need the information for decision-making involves risk reduction, or as Smieliauskas has written, uncertainty reduction⁵⁰. If assurance rather than other engagements are performed, there must be good economic reasons related to risk reduction why this is so.
- (98) Presumably, certain kinds of engagements might be preferable to others despite being more expensive to carry out or involving greater practitioner liability because those kinds of engagements provide better risk reduction than the other kinds of engagements. Consequently, users of information provided by such engagements may desire and may be prepared to pay for more expensive engagements to get better information.
- (99) On the other hand, there may be circumstances where not the users, but the responsible party pays for the assurance engagements, such as is the case for financial statement audits, since, without a mechanism to address adverse selection and moral hazard, the user will observe the behaviour of the information preparer and establish a market price that includes some discount for the risk of unreliable information. In these circumstances, to increase their economic rents, the preparer may pay for a third party “verifier” of his or her information. With the assurance reporting mechanism in place, the preparer will receive a higher rent for his or her products or services or attract capital at lower cost due to the risk reduction for the user of the information.⁵¹ In many cases there may be legal requirements, or contractual relationships between users and responsible parties, or a combination of both, whereby the responsible party pays for the assurance service in relation to information for the user.
- (100) Section 3 of Part B of this Chapter notes that there are a number of characteristics that distinguish assurance engagements from other engagements. First, it notes that in a professional engagement the practitioner exercises professional judgement. This implies that the reason for the performance of professional engagements is the willingness of users to pay (or willing to exert political or economic pressure on the responsible party to pay) for the professional judgement of a practitioner because users are not in a position to exercise such professional judgement or do not have access to detailed information about the subject matter so that they can exercise such judgement.
- (101) Second, attestation engagements are distinguished from other kinds of engagements by the fact that the practitioner issues a report of findings in relation to subject matter based on procedures that the practitioner has performed in relation to that subject matter. Again, the reason for the

⁵⁰ W. J. Smieliauskas, p. 9

⁵¹ We are indebted to Richard C. Jones, PhD, CPA, Assistant Professor at Hofstra University for this description of the economic mechanisms by which responsible parties find it in their interest to pay for assurance services on information they prepare for users.

performance of attestation engagements must be that users are willing to pay (or exert pressure on the responsible party to pay) for the risk reduction transmitted by the report of findings based on the procedures performed on particular subject matter – it must provide them with useful information for decision-making (i.e., risk reduction) over and above what other non-attestation engagements are able to provide.

- (102) Third, assurance engagements are distinguished from other attestation engagements (agreed-upon procedures engagements) by the findings reported representing an opinion or conclusion with a certain level of assurance on the conformity of the subject matter with the identified suitable criteria. This distinction appears to suggest that the users are not necessarily in a position to draw appropriate conclusions from findings reported based on procedures performed and hence are willing to pay (or exert pressure on the responsible party to pay) for the risk reduction provided by the professional judgement of the practitioner in evaluating the results of the procedures to arrive at an overall conclusion on the conformity of the subject matter with the identified suitable criteria.
- (103) The example *par excellence* of an assurance engagement is, of course, the audit of financial statements. Users of financial statements appear to be prepared to pay (or to exert the pressure on management by political or economic means, e.g., have governments require statutory audits, etc.) to have auditors exercise their professional judgement about financial statements and issue to users an overall conclusion (the audit opinion) on the conformity of the financial statements with the identified financial reporting framework, rather than to have auditors simply list their factual findings about the results of specified procedures without an opinion, because the risk of an incorrect decision is reduced by means of that opinion.
- (104) Of course, at this stage the analysis has only covered the adverse selection type of information asymmetry leading to the decision usefulness approach and has not addressed moral hazard, which would involve an agency theory approach. Agency theory has been applied to provide a theoretical basis for accounting theory, and has also been applied to selected auditing problems by academics, but not yet in a rigorous and systematic fashion. It has been recognized that agency theory implies that both accounting standards (the criteria) and auditing (the assurance engagement) are important to giving net income the credibility it needs to serve as a basis for contracts, such as management compensation arrangements, between owners and managers.⁵²
- (105) In this sense, auditing of financial statements also serves to allocate risk between owners and managers (i.e., generally, risk reduction for owners). For example, managers may seek to reduce their legal risk vs. financial statement

⁵² W. R. Scott, p. 305

users by having an audit done. This line of argument, however, is very complex and goes beyond the scope of this Paper.

- (106) Furthermore, moral hazard and hence agency theory lead to the conclusion that auditing also serves to influence manager behaviour by acting as a deterrent to intentional and unintentional misstatements in financial statements. This deterrent effect also increases the credibility of financial statements by reducing the risk to the owners that the financial statements contain a material misstatement. Again, this line of argument is also very complex and goes beyond the scope of this Paper.
- (107) The arguments with respect to risk reduction, whether based on adverse selection or moral hazard, do not mean that governments, regulators and standard setters do not have broader public policy objectives in mind when passing laws, issuing regulations or promulgating standards, respectively. Nevertheless, when such measures are set forth, their invariable effect is to reallocate responsibility and hence risk between various parties in society, usually due to public policy interests as expressed by means of public interest pressure groups. In other words, even though risk reduction for certain parties may not be the ultimate objective behind public policy, the execution of public policy with respect to assurance engagements is associated with risk reduction for certain parties.
- (108) Consequently, risk reduction will be assumed to form the basis for assurance engagements, whether based on adverse selection or moral hazard.
- (109) **In conclusion, assurance engagements are performed rather than other types of engagements in certain circumstances because users are willing to pay or to exert pressure to have responsible parties pay for the increased risk reduction associated with the issuance of an overall professional opinion on the conformity of the subject matter with the identified suitable criteria.**

IV. THE EXISTENCE AND NATURE OF LEVELS OF ASSURANCE

A. ISA 100 AND THE MODERATE-HIGH DICHOTOMY PROBLEM

Issue: What are the issues that need to be considered to be able to analyse the moderate-high dichotomy problem in ISA 100

- (110) As has been mentioned previously in this Paper, in the “Report on the issue from exposure drafts of the International Standard on Assurance Engagements” attached to ISA 100 Assurance Engagements, two views of moderate assurance were expressed: the interaction of variables view and the work effort view. Those ascribing to the interaction of variables approaches believe that it is the interaction between the engagement elements – subject matter, criteria, engagement process and available evidence – that determines what level of assurance can be obtained. Those ascribing to the work effort approach believe that the interaction of subject matter, criteria and available evidence must lead to the general ability to carry out an assurance engagement (that is, a threshold must be reached).⁵³ The practical impact of the two different views is that under the variables approach a moderate assurance engagement can, in principle, be carried out even though a high level of assurance cannot be obtained, whereas under the work effort approach a moderate assurance engagement cannot be carried out unless it is possible to carry out a high assurance engagement.
- (111) In substance this divergence of views relates not only to what the determinants of assurance for moderate assurance engagements are, but also what the determinants for assurance for high assurance engagements are. This question is inextricably linked to the issue of what the distinction between a high and a moderate assurance engagement is and the presumption that different levels of assurance in fact exist. This, in turn is related to the question of what assurance is – that is, what is the nature of assurance? Given that assurance is an artificially created construct (that is, it was created by accountants to serve specific purposes), ultimately the purpose of assurance determines what it is.
- (112) **In conclusion, the issue that needs to be addressed is what the purpose of assurance is and from that determine what the nature of assurance ought to be.**

⁵³ IFAC 2001, ISA 100, pp. 134-139

B. THE NATURE OF ASSURANCE

1. THE PURPOSE OF ASSURANCE

Issue: What is the purpose of assurance?

- (113) The purpose of the theoretical construct termed “assurance” can only be determined in relation to where it is intended to be used: that is, within the context of assurance services or assurance engagements. Since this Paper focuses on assurance engagements, its use within the context of assurance engagements will be emphasized.
- (114) In Part C of Chapter III it was noted that the purpose of an assurance engagement appears to be risk reduction with respect to decisions based on the conformity of subject matter with the identified suitable criteria. The link between assurance and risk in this constellation has, however, not been determined. This requires a general investigation of what assurance might mean.
- (115) In accordance with Funk & Wagnall’s Canadian College Dictionary, assurance is defined as 1. the act of assuring, or the state of being assured; 2. a positive statement, intending to give confidence, encouragement, etc. ; 3. firmness of mind, confidence in self or in others, certainty; 4. boldness, effrontery; 5. (chiefly British) insurance, especially life insurance; synonym – see certainty; antonym – see doubt, distrust, misgiving, hesitancy, timidity. This definition is linked to the definition of the verb assure, which the dictionary defines as 1. to make sure or secure, establish firmly; 2. to make (something) certain, guarantee; 3. to cause to feel certain, convince; 4. to promise, make positive declaration to; 5. to give confidence to, encourage, reassure; 6. to insure, as against loss. The dictionary also provides its Latin root: ad (to) and securus (safe) – in other words, to make safe.⁵⁴
- (116) Without looking at special definitions used in specific legal situations, it is interesting to note that the general definition of the term “assurance” used in Black’s Law Dictionary is something that gives confidence; the state of being confident or secure; a pledge or guarantee.⁵⁵ Overall, the definitions in both dictionaries convey a sense of assurance being equated with the provision of confidence, security and certainty.
- (117) **In conclusion, assurance appears to be related to the provision of confidence, certainty and security with respect to something to someone.**

⁵⁴ Funk & Wagnall’s Canadian College Dictionary, 1989, pp. 88-89

⁵⁵ Garner et al., Black’s Law Dictionary, Seventh Edition, p.121

2. ASSURANCE FROM WHO'S POINT OF VIEW

Issue: Who is obtaining the confidence, certainty or security related to assurance?

- (118) From the description of assurance engagements as defined by a number of standard setters, an assurance engagement involves three parties (assurer, the party responsible for the subject matter and the user), whereas at least one standard setter allows two-party attestation engagements (see Section 3 of Part B of Chapter III). The question that arises in connection with the assurance construct is, who is obtaining the assurance – that is, from whose point of view should assurance be defined?
- (119) Some standards applicable to the audits of financial statements look at assurance from the point of view of the auditor: that is, at the assurance obtained. For example, AU § 110.02 states that the auditor has a responsibility to plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether caused by fraud or error.⁵⁶ Likewise, CICA Handbook Section 5090.04 states that an auditor seeks high, though not absolute assurance, hereinafter referred to as reasonable assurance.⁵⁷ On the other hand some audit standards look at assurance from the point of view of the assurance provided to the user by the audit report. Examples of this situation include ISA 200.08⁵⁸, APB SAS 100.08⁵⁹ and AUS 202.08⁶⁰.
- (120) Furthermore, there are differences of perspective in this respect among assurance and attestation standards as well. For example, AT §100.56 and .58 speak of achieving the highest level of assurance and that the practitioner's report include a statement that the practitioner believes the examination provided a reasonable basis for the opinion, respectively⁶¹, whereas in the subsequent revision of this standard, AT § 101.53 and 100.54 speak of the provision of a high level of assurance and moderate level of assurance, respectively.⁶² On the other hand, ISA 100.04 speaks of the provision of assurance to the intended user.⁶³ Consequently it can be seen that standard setters do not appear to be of one mind with respect to which perspective of

⁵⁶ AICPA 2001, AU §110.03,

⁵⁷ CICA 2001, *Handbook Vol. I*, Section 5090.04.

⁵⁸ IFAC 2001, ISA 200.08

⁵⁹ APB, *Auditing and Reporting 2002/2003* (Croner.CCH Group Ltd: London, 2002), SAS 100.08

⁶⁰ National Councils, *Auditing Handbook 2001*. (Pearson Education Australia: Kiama, New South Wales, 2001), AUS 202.08

⁶¹ AICPA 2001, AT §100.56 & .58

⁶² AICPA 2001, AT § 101.53 & .54

⁶³ IFAC 2001, ISA 100.04

assurance appears to be the one that should be used as a basis for assurance engagements.

- (121) Overall, categorizing assurance into three perspectives appears to be useful: the assurance obtained by the practitioner from his or her procedures, the assurance expressed in the conclusion or opinion in the practitioner's report and the assurance attributed by the user of the report to the assurance engagement. The question that needs to be answered in this respect is, whether the assurance for each of these different perspectives is the same.
- (122) **Nevertheless, in conclusion it can be said that there appear to be three different perspectives of assurance: that obtained by the practitioner, that expressed in the report and that attributed by the user.**

3. THE EXPECTATIONS GAP

Issue: Is the assurance under each of the three perspectives of assurance the same?

- (123) If one were to believe that assurance under each of the three perspectives of assurance is not the same, there must be some kind of theoretical basis for that belief. One of the concepts that may provide a basis to analyse the three perspectives of assurance is the so-called expectations gap. This term describes the difference between the expectations of those who rely on audit reports about what auditors should do and what they are perceived to be doing.⁶⁴
- (124) The expectations gap has been divided into different portions. In particular, it has been divided into the reasonableness gap (the gap caused by unreasonable expectations held by the public as to what can be reasonably expected from an audit – that is, the difference between what an audit can deliver and what the public expects from audits) and the performance gap (the gap caused by the difference between what can reasonably be expected of an audit and what auditors are perceived to be doing). The performance gap can be divided into the deficient standards gap (the gap caused by the difference between what can be reasonably expected from an audit and what professional standards and the law require) and the deficient performance gap (the difference between what professional standards and the law require and what auditors actually do).⁶⁵

⁶⁴ I. Gray and S. Manson, p. 38

⁶⁵ I. Gray and S. Manson, pp. 38-39

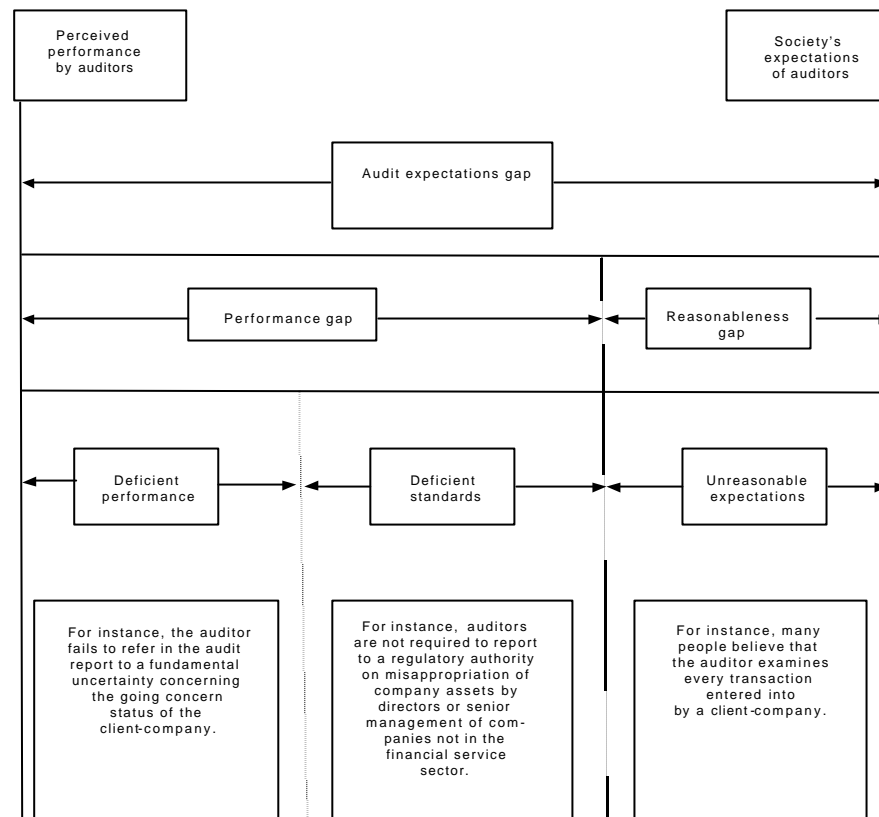


Diagram 1: from I. Gray and S. Manson, pp. 38-39

- (125) There are, of course, varying reasons for the existence of the different gaps identified. For example, the deficient performance gap can be caused by a number of factors, including a lack of competence or a lack of independence. Deficient standards may be caused by political and technical factors, among others. The reasonableness gap may be caused in part by public desires for levels of security (e.g., absolute assurance) that are not deliverable in the real world. Furthermore, it should be recognized that these gaps change over time. In other words, society's expectations, professional standards and legal requirements and the actual performance of auditors change due to changes in society, including technological changes.⁶⁶
- (126) Less often recognized is that the gaps could, in certain circumstances, invert. For example, legal requirements might be established that require auditors to perform to a standard that goes beyond what can reasonably be expected of an audit. An example of this kind of situation would be if an auditor were legally

⁶⁶ I. Gray and S. Manson, pp. 517-529

required to audit unauditably subject matter or apply criteria that are not suitable for the context of that engagement. Furthermore, it is conceivable that professional standards that are not achievable could be set due to political pressure: this is a particular danger in those circumstances in which auditing standard setters have more voting members from outside the profession than from within the profession.

- (127) Another example of gap inversion is the fact that many professional firms set internal standards for the performance of audits that in certain aspects go beyond legal requirements or professional standards as part of their risk management policies. In any case, when legal requirements or professional standards are set, the risk of gap inversion needs to be considered.
- (128) Overall, it is apparent that the assurance associated with the three different perspectives of assurance may be related to the different portions of the expectation gap. In particular, the assurance attributed by users to assurance reports is likely to be heavily affected by their expectations of what they believe assurance engagements should deliver, whether these expectations are actually reasonable or not. Furthermore, the assurance expressed by practitioner in an assurance report is likely to reflect legal requirements and professional standards for reporting, regardless of whether or not that assurance was achieved in the performance of the engagement. In addition, the assurance obtained by the practitioner reflects the work actually performed in the course of the engagement rather than the assurance attributed to the engagement report by the users or required by law or professional standards.
- (129) Since each of the perspectives is associated with different assurance, the question then arises as to which assurance perspective is the relevant one for the purposes of the analysis in this Paper. Overall, applying the assurance desired by users does not appear to be a practical proposition, since this assurance cannot be achieved in any case (some academics claim that the expectations gap – especially that in relation to the reasonableness gap, will never be fully closed)⁶⁷ and this assurance varies widely from one user to another. Furthermore, the assurance expressed in an assurance report is that set by standards and legal requirements – not one that is determined by the performance of the engagement, even though ethical requirements are that practitioners should perform to standard. Consequently and since the Paper focuses on the determinants of assurance in the performance of an engagement, the assurance obtained by the practitioner in the course of the engagement appears to be the appropriate assurance perspective for the purposes of this Paper.

⁶⁷ I. Gray and S. Manson, p. 517

- (130) **It is therefore recommended that the assurance obtained by the practitioner in the course of the engagement be used as the basis for the analysis of assurance in this Paper and for standard setting generally.**

4. DECISION THEORY, ASSURANCE AND ENGAGEMENT RISK

Issue: What is the relationship between the assurance obtained by the practitioner and engagement risk?

- (131) It was noted in Chapter III Part C that, based on decision theory, the purpose of an assurance engagement is risk reduction from the point of view of the user. In the previous Section, however, the conclusion was drawn that when speaking of assurance in relation to the determinants of assurance in an assurance engagement, the focus is on the assurance obtained by the practitioner. The question then arises whether the assurance obtained by the practitioner is related in some way to the practitioner's exercise of risk reduction in the performance of the engagement.
- (132) There is considerable literature on the subject of audit risk (the risk that an auditor issues an unqualified audit report when the financial statements are materially misstated). There is also a growing body of literature dealing with the counterpart of audit risk in assurance engagements, known as engagement risk, which has been defined in different ways by different standard setters.
- (133) Some standard setters have defined audit risk as encompassing both the risk of incorrect acceptance (also known as beta-risk) and the risk of incorrect rejection⁶⁸ (also known as alpha-risk), whereas other standard setters have only included the risk of incorrect acceptance.⁶⁹ Similar variations exist among standard setters with respect to the definition of engagement risk for assurance services⁷⁰. Anomalously, ISA 100 has a different definition of engagement risk for high compared to moderate assurance engagements⁷¹. The important common ground among all these approaches is the use of decision theory as a basis for defining audit or engagement risk (i.e., both audit and engagement risk relate to the risks associated with a decision by the auditor or practitioner,

⁶⁸ APB 2002, *Auditing and Reporting*, SAS 300.03

⁶⁹ AICPA 2001, AU §312.02 footnote 3; National Councils, *Auditing Handbook 2001*, AUS 402.03; IFAC 2001, ISA 400.03; CICA 2001, *Handbook Vol. I*, Section 5130.09 CICA, *Handbook Volume II Assurance and Related Services Guidelines*. (CICA: Toronto, 2001), AuG-7.14-.15

⁷⁰ For the inclusion of both risks see CICA 2001, *Handbook Vol. I*, Section 5025.09; for the inclusion of only the risk of incorrect acceptance for attestation engagements see AICPA 2001, AT §100.34b, footnote 8

⁷¹ IFAC 2001, ISA 100.30 for the inclusion of both risks with respect to moderate assurance and ISA 100.49 for the inclusion of only the risk of incorrect acceptance for high assurance engagements.

respectively, in relation to reporting on the conclusions drawn from the performance of the engagement).

- (134) While there is some academic support for the notion that both risks need to be considered⁷², at this stage the academic work on the inclusion of alpha risk is in too early a stage in development for a more definite conclusion on this issue. Therefore, for the purposes of the analysis, this Paper will restrict the definition of engagement risk to include only the risk of incorrect acceptance, which is supported by some standard setters and significantly reduces the complexity of the analysis.
- (135) In other words, for the purposes of this Paper, in a rudimentary sense engagement risk is the risk that the practitioner comes to the conclusion that the subject matter conforms with the identified suitable criteria when in fact the subject matter does not do so. Nevertheless, the question remains as to how this risk is related to the assurance obtained by the practitioner in the course of the engagement.
- (136) It should be noted that, while not disputing a link between assurance and risk, a number of standard setters have scrupulously avoided defining a direct link between the two. For example, AU §312.02 speaks of both audit risk and reasonable assurance in two conjoining sentences, but does not attempt to define a link between the two. This applies even more to engagement risk vs. a reasonable basis for the engagement in AT §100.34b footnote 8 compared to AT §100.58f and AT §101.45b footnote 9 compare to AT §101.85f.⁷³
- (137) Likewise, ISA 200.08 speaks of reasonable assurance for audits, whereas ISA 400.02 speaks of reducing audit risk to an acceptably low level: no explicit link between assurance and risk is established. In ISA 100.29, high assurance is defined without reference to risk, but reducing engagement risk to a low level is mentioned in the same paragraph. In the first sentence of the following paragraph (ISA 100.30), moderate assurance is addressed for moderate assurance engagements without reference to risk, but the following sentence speaks of reducing engagement risk to a moderate level. Furthermore, in the “standard” section on high assurance engagements, ISA 100.31 and .32 speak of a high level of assurance and an acceptably low level of risk without directly connecting the two concepts in one sentence.⁷⁴
- (138) The situation is similar in CICA Handbook Volume I Section 5090.04, which speaks of reasonable assurance without addressing audit risk, while audit risk is addressed separately in CICA Handbook Volume I Section 5130 without linking it to reasonable assurance. In CICA Handbook Volume I Section 5025.09-.12,

⁷² See J. E. Boritz and P. Zhang, pp. 31-33 and Smieliauskas, pp. 148-150

⁷³ AICPA 2001, AU §312.02, AT §100.34b footnote 8, AT §100.58f, AT §101.45b footnote 9 and AT §101.85f

⁷⁴ IFAC 2001, ISA 100.29-.32; ISA 200.08; ISA 400.02

engagement risk is addressed separately from high and moderate assurance, but low risk is associated with high assurance and moderate risk is associated with moderate assurance.⁷⁵ The audit standards in the UK portray the same separation of concepts: SAS 100.08 speaks of reasonable assurance, but does not directly link this to audit risk in SAS 100.10.⁷⁶

- (139) In conclusion, it can be said that standard setters recognise that there is some kind of connection between audit or engagement risk and assurance, and in some cases even recognise a tenuous inverse relationship, but appear to be hesitant about directly linking the two concepts. One can only speculate about the reasons for this, but they are likely to be legal in origin.
- (140) The view in auditing textbooks on this issue, with a few exceptions, generally appears to be different. For example, Arens and Loebbecke state that

“... acceptable audit risk is a measure of how willing the auditor is to accept that the financial statements may be materially misstated after the audit is completed and an unqualified opinion has been issued. When the auditor decides on a lower acceptable audit risk, it means the auditor wants to be more certain that the financial statements are not materially misstated. Zero risk would be certainty, and a 100 percent risk would be complete uncertainty. Complete assurance (zero risk) of the accuracy of the financial statements is not economically practical (...). Frequently auditors refer to the terms audit assurance, overall assurance, or level of assurance instead of acceptable audit risk (...), that is, one minus acceptable audit risk. For example, acceptable audit risk of 2 percent is the same as audit assurance of 98 percent ...”⁷⁷

In the same vein, Anderson states

“The concept of an appropriate degree of assurance from the audit opinion can be examined in terms of the complement of such assurance – the risk of undetected misstatements remaining in the audited financial statements...”⁷⁸

and

“... To determine how high a degree of assurance (how low a level of risk) is appropriate...”⁷⁹

- (141) Montgomery’s Auditing also points out

“The complement of that risk is an expression of the level of assurance that the opinion will be appropriate. Stated another way, the auditor seeks

⁷⁵ CICA 2001, *Handbook Vol. I*, Section 5090.04; Section 5130; Section 5025.09-.12

⁷⁶ APB 2002, *Auditing and Reporting*, SAS 100.08 & .10

⁷⁷ A. A. Arens and J. K. Loebbecke, p. 243

⁷⁸ R.J. Anderson, p. 146

⁷⁹ R.J. Anderson, pp. 149

to have a low risk that the opinion expressed is inappropriate, or a high level of assurance that the financial statements are free from material misstatements ... Obtaining audit assurance and limiting audit risk are alternative ways of looking at the same process.”⁸⁰

- (142) Not only auditing textbooks, but also academic work appears to support a direct inverse link between audit risk and assurance. For example Smieliauskas states

“Since audit assurance is the complement of audit risk...”⁸¹

In addition the Report on the IAASB Research Project on moderate assurance asserts

“It does not matter under which risk paradigm this review is undertaken, as the major concern is on the factors influencing the level of assurance (the inverse of risk) that is sought.”⁸²

- (143) There has, of course, been academic work where the definitions have deviated from a direct inverse relationship between assurance and risk. For example, in a paper from Carslaw and Yamamura, assurance is defined as an added degree of confidence or reliability arising from the procedures selected and performed by professional accountants in accordance with their professional judgment. In this case, no link was established to engagement or audit risk.⁸³ Furthermore, other academics, such as Smieliauskas have attempted to refine the understanding of uncertainty in the context of assurance by adding elements of Baconian probabilities and vagueness in addition to risk.⁸⁴ Smieliauskas suggests that including alpha as well as beta risk into the audit risk model may be a topic for future research.⁸⁵ The possible effects of vagueness will be addressed briefly in the following Section.
- (144) The problem of the applicability of Baconian probabilities, however, is central to engagement risk and practitioner efforts to reduce it. It is evident that Baconian probabilities are used in academic literature for accounting, medicine, law and other fields⁸⁶, but it appears that they have not yet been systematically applied to auditing theory. The genesis of the application of Baconian probabilities for professional problem solving appears to have been in research stimulated by statisticians, such as Jonathan L. Cohen in 1986 and David A. Schum thereafter, involved in controversies surrounding the rejection by parts of the legal profession of Bayesian methodologies for the legal theory of evidence. These challenges to the Bayesian model of rational thought for legal procedure

⁸⁰ V.C. O'Reilly et al., p. 6-12

⁸¹ W.J. Smieliauskas, p. 155

⁸² IAASB of IFAC, *Study 1: The Determination and Communication of Levels of Assurance Other Than High*, 2002, p. 29

⁸³ C. Carslaw and J.H. Yamamura, p. 8

⁸⁴ W.J. Smieliauskas, pp. 105 and 158-160

⁸⁵ W.J. Smieliauskas, p. 150 footnote 9

⁸⁶ W.J. Smieliauskas, pp. 105 and 158

and evidence⁸⁷ represent a major controversy between those who argue in favour of mathematical models based on the use of Bayes' Theorem, or some other theory of probability, as an instrument for estimating the effect of evidence, and those who believe that the reasoning involved in these cases is primarily nonmathematical and that probability judgments are based on a huge mass of inductive generalisations about human behaviour and cause and effect in the world.⁸⁸

- (145) The Baconian approach stresses the importance of eliminative and variative inductive methods by means of which evidential tests are used not to support but to eliminate alternative hypotheses. Two participants in this controversy, Kadane and Schum point out:

"The more *different* kinds of tests a hypothesis passes, the more confidence one can have in this hypothesis. One important element of eliminative and variative induction concerns the *completeness of the evidential coverage* in testing of hypotheses. On an eliminative view, there is as much concern about how many relevant evidential tests were *not* made as there is concern about how many evidential tests some hypothesis has passed. Finally, many persons have noted that probability expressions are commonly given in words rather than numbers. ... Some persons believe this to be a distinct virtue of words, particularly in situations in which evidence, reasoning linkages, and hypotheses may themselves be imprecise."⁸⁹

- (146) Consequently, it is important not to lose sight of other than Bayesian – and in particular, not lose sight of Baconian – approaches to risk and hence assurance. The major problem associated with the use of a Baconian approach to engagement risk is the lack of academic research investigating these problems in sufficient depth so that standard setters and practitioners can perceive the implications for current audit and engagement risk models.
- (147) Since it is apparent that more research needs to be done in the area dealing with the applicability of Baconian probabilities in an assurance context, this Paper will apply the orthodox Bayesian approach to audit and engagement risk. It is hoped that academics will engage in more theoretical and empirical research on this promising topic.
- (148) Another important issue with respect to the relationship between assurance and audit or engagement risk is consilience between the assurance engagement and its subject matter – that is, whether the engagement uncertainties are *separable* from uncertainties associated with the subject matter of the engagement. If separability is assumed, then the criteria are treated as a

⁸⁷ R.O. Lempert et al., p. 239

⁸⁸ I.H. Dennis, p. 102

⁸⁹ J.B. Kadane and D.A. Schum, p. 120

standard for evaluating the subject matter. On the other hand, if nonseparability is assumed, then the risks associated with the criteria (e.g., the risk that the criteria may not be suitable) cannot be separated from engagement risk.⁹⁰

- (149) While supporters of this view suggest that it is supported for audits of financial statements by the legal system (i.e., through the fair presentation or true and fair view override provisions and the decisions of the courts in such matters),⁹¹ one could also argue that in these cases the criteria (the financial reporting framework) include not only generally accepted accounting principles, but also criteria in relation to fair presentation and a true and fair view. Supporters of the *nonseparability interpretation* also argue that users do not differentiate such sources of risk,⁹² but whether this view is appropriate depends upon the assurance perspective taken, for it may be argued that the practitioner perspective (see the previous Section) effectively precludes a user perspective with respect to sources of risk.
- (150) However, it should be recognised that the issue of separability vs. nonseparability is important, since it determines whether or not engagement risk should also encompass the risks inherent to the uncertainties associated with the subject matter or the criteria⁹³. Furthermore, applying a practitioner perspective of risk does not preclude a redefinition of audit risk to include the risks associated with uncertainties arising from the application of the criteria to the subject matter (in the case of financial statements, applying the requirements of the accounting framework to the financial statements to determine whether these are in accordance with that framework). On this basis, it may be more accurate to speak of inclusivity – that is, the inclusion in the definition of audit risk of those risks associated with uncertainties arising from the application of the criteria to the subject matter - rather than of separability or nonseparability.
- (151) Since the nonseparability interpretation is still fairly new at this stage, this Paper will, in the first instance, apply the currently orthodox separability interpretation for the analyses in this paper, but will briefly address the issue where it becomes relevant to the analysis. However, it is apparent that this issue requires more theoretical and empirical research.
- (152) Another issue influencing auditor behaviour under engagement or audit risk related to audit quality that does not yet appear to have been investigated in detail is the application of so-called Taleb distributions⁹⁴ to auditor behaviour. John Kay writes “A Taleb distribution has the property that many small profits

⁹⁰ W.J. Smieliauskas, p. 136

⁹¹ W.J. Smieliauskas, pp. 136-138

⁹² W.J. Smieliauskas, pp. 137-139

⁹³ W.J. Smieliauskas, pp. 205-213

⁹⁴ John Kay, Financial Times, January 15, 2003

are mixed with occasional large losses.”⁹⁵ This distribution can be used to describe risk-taking behaviour in a number of situations and may be useful in describing auditor behaviour. For example, it is conceivable that an auditor could cut corners in the quality of an audit many times, thereby leading to many small gains in terms of audit engagement profitability, without suffering catastrophic losses due to claims against the accounting firm. However, because auditors may dissociate the gains from the potentially very infrequent catastrophic losses, auditors may not behave in a completely rational manner to ensure that the likelihood of catastrophic losses has been reduced to an acceptable degree. The application of Taleb distributions to help understand practitioner behaviour in relation to engagement risk appears to be an area that requires further academic research.

- (153) **On the whole it seems to be prudent to presume that, if the effects of a Bayesian approach to risk and hence assurance can be determined, assurance, as a theoretical construct, is mathematically inversely related to engagement risk for assurance engagements: in other words, one minus engagement risk is equal to assurance and vice-versa. Alternatives to this presumption do not appear to be operationalisable at the present time under the current state of development of auditing theory. This has enormous implications for the nature of assurance and therefore its definition. In addition, since for most matters addressed in this Paper, the separability vs. inseparability issue is not important, in those instances the Paper will apply the orthodox separability approach, but for those areas where the separability issue may be important the Paper will briefly address that issue.** Before examining the logical consequences of such a link between assurance and risk, the relationship between assurance and credibility ought to be addressed briefly.

5. DEFINING ASSURANCE AND CREDIBILITY

Issue: Is there a difference between assurance and credibility?

- (154) Based on the analysis in the previous section, from a Bayesian point of view assurance can be defined as the mathematical complement of engagement risk or the degree of certainty that a practitioner obtains in the course of an engagement that the subject matter is in conformity with the identified suitable criteria (the definition may have to be adjusted in parts as other aspects of assurance in an assurance engagement are analysed). The question then arises as to what relationship the oft-used term “credibility” has to assurance.

⁹⁵ John Kay, Financial Times, January 15, 2003

- (155) The original exposure draft by IFAC dealing with this topic was entitled “Reporting on the Credibility of Information”. Yet this lengthy document did not define what the term meant as used therein.⁹⁶ Furthermore, ISA 100.04 states that assurance engagements performed by professional accountants are intended to enhance the credibility of information about subject matter, yet credibility is not defined.⁹⁷ A general dictionary defines “credible” as: 1. capable of being believed; 2. worthy of confidence, reliable; the Latin root is credere – to believe.⁹⁸ A law dictionary defines credibility as the quality that makes something (as a witness or some evidence) worthy of belief.⁹⁹
- (156) In other words, while in English the word may be used interchangeably with reliability, its meaning in a formal sense is more closely connected with the strength with which something may be believed, rather than with the formal use of the term reliability as defined in accounting literature or assurance engagement standards. It is apparent from ISA 400.04 that assurance engagements should enhance credibility. In this sense, there does not appear to be any overt difference between the use of the term assurance and the use of the term credibility except for one of perspective: that is, the use of the term credibility appears to be directed towards the increase of assurance in the eyes of the user. It common jargon it is often said that auditors “lend credibility” to the financial statements through a financial statement audit.
- (157) **Given this analysis of the use of the term credibility, it should probably be restricted to the provision of assurance by the practitioner to the user by means of the assurance report and not be used to portray the assurance that a practitioner has obtained during the course of the engagement. This distinction between assurance obtained and that provided can prevent confusion through the careful use of nomenclature – i.e., by speaking of credibility in the second case rather than of assurance.**

6. THE LOGICAL CONSEQUENCES FLOWING FROM THE DEFINITION OF ASSURANCE

Issue: What is the nature of assurance given its definition in relation to risk?

- (158) In Section 4 of this Part, assurance for assurance engagements was defined in terms of engagement risk, or rather, to be more precise, as its mathematical complement. As was mentioned, this has enormous implications for the nature

⁹⁶ IAPC of IFAC, *Exposure Draft: Proposed Framework and International Standard: Reporting the Credibility of Information*, 1997

⁹⁷ IFAC 2001, ISA 100.04

⁹⁸ Funk & Wagnall's *Canadian College Dictionary*, 1989, p. 316

⁹⁹ Garner et al., *Black's Law Dictionary*, Seventh Edition, p. 374

of assurance. However, before an analysis of the implications takes place, the limitations of an analysis based on a definition should be addressed briefly.

- (159) The primary limitations on developing proposals on the nature of assurance based on the concepts contained in a definition appear to be the roles of “fuzzy logic” or “vagueness” in the application of these concepts. Fuzzy logic concerns itself with degrees of truth (i.e., a continuum from completely true to completely untrue) rather than a truth-falsity dichotomy.¹⁰⁰ Logicians have now conceived the concept as an application of so-called vagueness¹⁰¹, which, depending upon the theory of vagueness applied, in substance either refers to fuzzily articulated concepts¹⁰² or fuzzy subject matter (ontic vagueness).¹⁰³
- (160) While there have been attempts to use fuzzy logic in dealing with audit uncertainties, it appears that academics have come to the conclusion that fuzzy logic is perceived as a means of dealing with continuous-valued variables rather than uncertainty. As Smieliauskas pointed out, because more refined concepts reflect more exact knowledge, the solution to vagueness (or, at least, to reduce the risk of unnecessary vagueness) means that more precise concepts need to be developed and applied. In any case, he draws the conclusion that all measurement (in the strict sense) involves turning qualitative relationships based on perception into quantitative ones based on some mathematical system, using a representation theorem that is based on reasoning by analogy between the empirical objects and the mathematical ones.¹⁰⁴ Whether this is an appropriate approach remains open to question, but at least it provides an indication of the possibility of ameliorating the limitations imposed by the concepts of fuzzy logic and vagueness for the purposes of the issues at hand.
- (161) With these limitations in mind, defining assurance as the mathematical complement of risk automatically draws with it a number of conclusions about the nature of assurance. First, it should be considered that risk can be mathematically described (even if the quantification is expressed in narrative terms), in particular by nonparametric mathematical methods. Above all, it is recognized, that, all other things being equal, different risks can be ranked, at the very least by order of preference. This means that the use of a nominal scale is not sufficient to describe different risks, for a nominal scale only provides information with respect to the fact the risks are different rather than the fact that risks can be ranked.¹⁰⁵ In other words, when using an ordinal scale one speaks not only of different “kinds” of risk, but of different “levels” of risk.

¹⁰⁰ G. Priest, p. 214

¹⁰¹ G. Priest, pp. 211-212 and pp. 225-226

¹⁰² the epistemic perspective, supervaluationism, or many-valued logic or degree theories

¹⁰³ See R. Keefe and P. Smith ed., pp. 1-57

¹⁰⁴ W.J. Smieliauskas, pp. 157-158 and p. 159

¹⁰⁵ See J. Pfanzagl, pp. 28 and 74 for a discussion of the nature and uses of nominal scales

- (162) This thought can be made more concrete by considering the following argument, both from a numerical and linguistic point of view: all other things being equal, it is not unreasonable to presume that high assurance (say 90 %) is preferable to low assurance (say 10 %). A nominal scale would simply provide a purely qualitative assertion that high assurance is qualitatively different from low assurance without any further consideration of differences, whereas on an ordinal scale it may be possible to rank possible hypotheses in descending order by level of risk and hence ascending order by level of assurance.
- (163) In other words, at the very least an ordinal scale can be applied to describe risk and hence assurance. An ordinal scale would allow the ranking of risk and hence assurance by preference or other criteria.¹⁰⁶ For example, in an ordinal scale, all other things being equal, high assurance would generally be preferred to moderate assurance, which in turn would generally be preferred to low assurance. This approach would be in consonance with the axiomatic system for an equal-difference structure of measurement combined with a simplified system of discrete probabilities, which Smieliauskas believes may be sufficient when there is no need to measure risk to the level of meeting all the probability axioms.¹⁰⁷
- (164) Nevertheless, even if specific numerical values cannot be assigned to risk and hence assurance in an assurance engagement in practice, it should be recognized that, from a theoretical point of view, risk can be portrayed by using Bayesian probabilities. Bayesian probabilities can be described using parametric mathematical methods. Under a Bayesian approach to describing risk and hence assurance, assurance would have both a natural zero-point (0 %) and a natural maximum point (100 %), even if these may only be asymptotes that cannot be reached in the real world (the nature of these asymptotes will be discussed in a subsequent Section). There are a number of other important implications for the nature of assurance that arise on this basis.
- (165) These include, among others, transitivity (if high assurance is greater than moderate assurance, which in turn is greater than low assurance, then high assurance must be greater than low assurance), exclusivity or uniqueness (high assurance cannot be equivalent to moderate or low assurance), and continuity (assurance represents a continuum from 0 % to 100 %). While there are other implications, these may be the subject of further research and go beyond the scope of this Paper. In any case, one of the conclusions that may be drawn from the characteristic of continuity is, with the exception of the balance of the probabilities (50 %), the arbitrariness of any classification of levels of assurance within the natural minimum and maximum points.

¹⁰⁶ See J. Pfanzagl, pp. 29 and 74-79 for a theoretical discussion of ordinal scales

¹⁰⁷ W.J. Smieliauskas, p. 105

- (166) However, while the determination of the theoretical nature of assurance is useful to determine its properties, the inability to assign numerical values to the assurance obtained by practitioners in practice forces standard setters to work with an ordinal scale of assurance – albeit with a natural minimum and maximum point and a clearly defined mid-point. This implies that a combination of nonparametric mathematical methods and narrative definitions would need to be used to describe the relationship between levels of assurance.
- (167) **In conclusion, assurance is a fundamentally quantitative concept (“levels of assurance”). Nevertheless, while a Bayesian portrayal of risk and hence assurance is a useful tool in determining the fundamental nature of assurance, because practitioners are unable to assign specific numerical values to the assurance obtained in an assurance engagement in practice, in standard setting a combination of nonparametric mathematical methods and narrative definitions are required to describe the relationship between levels of assurance.**

7. THE IMPLICATIONS OF THE NATURE OF ASSURANCE FOR DIFFERENTIATING BETWEEN HIGH AND MODERATE ASSURANCE

Issue: What are the implications of the nature of assurance and the practical limitations on its numerical measurement on definitions of high and moderate assurance?

- (168) The fact that, from a theoretical point of view assurance is a continuum from 0 % to 100 % does not mean that it is practical to find a means of obtaining such fine gradations of assurance (this was, in fact recognized in ISA 100).¹⁰⁸ It was noted in the previous Section that practitioners are unable to assign numerical values to assurance obtained in an assurance engagement. Therefore, narrative descriptions of levels of assurance become necessary within the confines of the three levels (absolute, balance of the probabilities and zero) that can be objectively defined both numerically and by means of a narrative description. Furthermore, as noted previously, such descriptions of risk are ordinal in character.
- (169) The existence of a continuum, however, makes the classification of different levels of risk by numerical means completely arbitrary. This implies that, while, due to the characteristic of exclusivity or uniqueness, the lower bound of high assurance must be infinitesimally higher than the upper bound of moderate assurance (and that there can be no overlap), it is impossible to define exactly where this border lies. This is in itself not a tragic conclusion if there are other

¹⁰⁸ IFAC 2001, ISA 100.28

means by which one can operationalise and hence describe the difference between the two.

- (170) Of greater importance is whether exclusivity or uniqueness is specific to a particular engagement or to engagement types (for particular combinations of subject matter, criteria and evidence, e.g., audits of financial statements) or whether it ought to be viewed as a general rule. There are advantages and disadvantages to each of these approaches. The primary advantage of a concept of exclusivity that is particular to a certain engagement is the recognition that the subject matter-criteria-evidence mix in no two engagements is alike. The insurmountable problem with this perspective is the complete inability to compare the assurance obtained in different engagements covering the same (though not identical) subject matter with the same criteria. In other words, it would not be possible to develop a uniform approach to describing the assurance obtained in audits of financial statements. Consequently, the concept of exclusivity to a particular engagement appears to be a non-starter for both practical and political reasons.
- (171) Of greater interest is whether exclusivity ought to apply only within engagement types rather than across them. There is an intuitive attractiveness to this kind of concept because it means that what is considered to be high assurance for one type of engagement (e.g., for an audit of financial statements), would not necessarily be the same as what is considered to be high assurance for another type of engagement (e.g., assurance engagements on prospective financial information). The main problem with this concept is the complete lack of comparability across engagement types: at its logical extreme, this means that near absolute assurance would be high assurance for some types of engagements, whereas for other types of engagements high assurance would be equivalent to next to no assurance at all. In other words, the term “high assurance” would cover the entire spectrum of assurance, the consequence of which is the resultant meaninglessness of the term and the equivalence of high assurance with moderate assurance across all types of engagements, since moderate assurance would then also cover the entire spectrum of assurance.
- (172) Consequently, when using the term high assurance, it appears to be useful to use it in an absolute rather than relative sense. The same would then appear to apply to the use of the term “moderate” assurance. Hence, high and moderate would mean what the profession choose them to mean in an operational sense, but that in this sense each of the terms would refer to an absolute range of assurance rather than a range that has no upper or lower bounds other than those imposed by the natural minimum and maximum points under a Bayesian portrayal of risk. Furthermore, there would be no overlap between different levels of risk – that is, the different ranges signifying different levels are distinct and do not overlap, even if their numerical boundaries are indistinct.
- (173) In the Section 1 of Appendix II it was noted that the Report issued for the IAASB Study 1 also included a survey of firms in which practitioners were asked to

provide their views on the numerical basis for high and moderate assurance. Of particular interest were the arithmetic mean average values, which were 88 % for high and 60 % for moderate, respectively. The Report also noted that the standard deviation for moderate was considerably broader than for high, but that even the range of values among practitioners for high assurance was astounding. This suggests that standard setters need to provide more guidance on the meaning of assurance.¹⁰⁹

- (174) This treatment of the nomenclature for high and moderate assurance of course begs the question as to what “reasonable assurance” (which has usually been identified with high assurance) and “plausibility in the circumstances” (which has usually been identified with moderate assurance) mean. This, however, is a complex issue that is more appropriately addressed in the following Part of this Chapter.
- (175) **In conclusion, in a risk-based concept of assurance, assurance can be described as a continuum ranging from 0 % to 100 %, but it is difficult to operationalise numerical gradations of assurance in practice. Consequently, an ordinal scale of assurance with a natural minimum, maximum and mid-point can be applied. When applying an ordinal scale with narrative definitions of assurance levels, such as high, moderate and low, the most useful perspective of these ranges of assurance levels is that they are exclusive (do not overlap) and are therefore absolute, and therefore obey the rule of transitivity across different engagement types.**

¹⁰⁹ IAASB of IFAC 2002, *Study 1*, p. 96

C. REASONABLE VS. HIGH ASSURANCE

1. DEFINITIONS OF THE WORD “REASONABLE”

Issue: What does the term “reasonable” mean in relation to assurance, and in particular, in relation to high assurance?

- (176) In the previous part of this chapter, the meaning of assurance was discussed and analysed. The conclusion of this discussion led to the issue of what the word “reasonable” in relation to assurance in the term “reasonable assurance” means. The dictionary definition states that “reasonable” may mean 1. conformable to reason, sensible; 2. having the faculty of reason, rational; 3. governed by reasons in acting or thinking; 4. moderate, as in price – fair.¹¹⁰ Furthermore, the dictionary definition delineates the use of the term “reasonable” from “rational” by stating “Rational indicates only that human reason is at work; reasonable goes further and says that it is working well. A reasonable man bases his views or actions on good reasons; a reasonable proposition is not only logical, but also displays good judgment, sagacity, practicality, etc.”¹¹¹
- (177) The word reasonable, therefore, in its plain English sense suggests that when speaking of reasonable assurance, the level of assurance obtained is that that can be justified on the basis of good reasons that are logical, display good judgment and are practical. The legal profession in common law jurisdictions uses the concept of “reasonability” as a basis for making legal decisions. Black’s Law Dictionary describes the word “reasonable” as meaning 1. fair, proper, just, moderate or suitable under the circumstances; 2. according to reason; 3. fit and appropriate to the end in view; 4. not immoderate or excessive.¹¹² The use of the term reasonable in connection with doubt and certainty helps shed some further light on this issue. Reasonable doubt has been associated with more than just possible doubt, for example.¹¹³ The use of “reasonable” in connection with the “rule of reasonable certainty” suggests that reasonable certainty is more than just conjecture, likelihood, or even a probability of an event.¹¹⁴
- (178) Used in this way in connection with assurance, it could be suggested that reasonable assurance intimates substantial assurance – that is, more than just likely or probable. Nevertheless, it should not be overlooked that the legal

¹¹⁰ Funk & Wagnalls Canadian College Dictionary, 1989, p. 1122

¹¹¹ Funk & Wagnalls Canadian College Dictionary, 1989, p. 1118

¹¹² Garner et al., *Black’s Law Dictionary*, Seventh Edition, p. 1272 and Garner et al., *Black’s Law Dictionary*, Sixth Edition, p. 1265

¹¹³ Garner et al., *Black’s Law Dictionary*, Seventh Edition, p. 1272

¹¹⁴ Garner et al., *Black’s Law Dictionary*, Sixth Edition, p. 1265

definition of reasonableness is linked to suitability and appropriateness in the circumstances and for the end in view. This suggests that “reasonable assurance” is, unlike the terms “high”, “moderate” and “low”, a relative rather than absolute term. At this stage, it may be useful to review the use of the term “reasonable assurance” in different jurisdictions. While any such review within the confines of this Paper necessarily is superficial and incomplete, at the very least some indications of how the concept is viewed may be gleaned from such a review.

- (179) **In conclusion, the dictionary definition appears to link the term “reasonable” to good reasons that are logical, display good judgement and are practical, whereas the legal definitions suggest a relative term whose level depends on the circumstances or the end in view, but that is also associated with more than just likely or probable in certain circumstances.**

2. REASONABLE AND HIGH ASSURANCE IN DIFFERENT JURISDICTIONS

How are the terms “reasonable assurance” and “high assurance” described in major common law jurisdictions and by the IAASB?

a) Reasonable and High Assurance as Defined by the IAASB

- (180) ISA 200.08 states that an audit of financial statements is designed to provide reasonable assurance: that is, it addresses reasonable assurance from the point of view of the recipient of the auditor’s report. On the other hand, ISA 200.08 describes reasonable assurance for audits of financial statements, but does not attempt to define it formally, other than to say that it is a concept relating to the accumulation of the audit evidence necessary for the auditor to conclude that there are no material misstatements in the financial statements taken as a whole.¹¹⁵ This description takes an “assurance obtained by the auditor” perspective and is, of course, based on the work effort view of assurance, which is a reasonable approach in this case because it is generally assumed that the subject matter (financial statements) is sufficiently precise and the criteria (accounting standards) are sufficiently suitable.
- (181) ISA 200.09 also goes on to note that there are, however, inherent limitations in an audit that affect the auditor’s ability to detect material misstatements due to the use of testing, the inherent limitations of internal control and the fact that audit evidence is generally persuasive rather than conclusive. Furthermore, ISA 200.10 notes that the work undertaken by the auditor is permeated by judgement and that there are other limitations that may affect the

¹¹⁵ IFAC 2001, ISA 200.08

persuasiveness of evidence available to draw conclusions on particular financial statement assertions (ISA 200.11).¹¹⁶ On this basis it appears that ISA 200 accepts the notion that the assurance that can be obtained in an audit depends on the circumstances (particularly in relation to the nature and extent of available evidence and the nature of the accounting assertion), which is closer to the variables approach

- (182) The glossary, on the other hand, addresses the assurance provided rather than that obtained and defines reasonable assurance as being high but not absolute.¹¹⁷ This implies that an audit of financial statements that leads to the expression of an unqualified opinion always obtains high assurance, regardless of the circumstances. In this connection it is interesting to note that ISA 240.17 points out that auditing procedures may be ineffective for detecting certain kinds of intentional misstatements that are concealed through collusion between or among one or more individuals among management, those charged with governance, employees or third parties, or involves falsified documentation.¹¹⁸ Yet, despite this very important assertion, the effect of this limitation on the assurance obtained is not addressed.
- (183) Overall, it appears that the treatment of assurance in the ISA for audits of financial statements does not appear to be internally consistent because:
1. it is not clear which assurance perspective is being taken (auditor or user?);
 2. on the one hand, assurance is linked to the accumulation of evidence, but on the other hand ISA 200 speaks of inherent limitations on that assurance, so it is not clear whether the work effort or variables approach or a combination thereof is being applied;
 3. even though it is recognised that there are inherent limitations on the level of assurance that it is reasonable to obtain, reasonable assurance is also defined as being high, but not absolute (in other words, high can always be attained, regardless of the circumstances).
- (184) It should be noted that ISA 100 does not address the concept of reasonable assurance, but only attempts to differentiate between high and moderate (ISA 100.29-.30). If one were to interpret high as meaning reasonable as was done in the glossary, then the same inconsistencies applicable to the treatment of assurance for audits of financial statements apply to assurance engagements, for much of the description of high assurance is borrowed from the ISA dealing with audits of financial statements. On the other hand, interpreting high as being reasonable would be inconsistent with the last sentence in ISA 100.29, which states that the engagement is designed to reduce to a low level (rather than an

¹¹⁶ IFAC 2001, ISA 100.09-.11

¹¹⁷ IFAC 2001, Glossary of terms, p. 106

¹¹⁸ IFAC 2001, ISA 240.17

acceptably low level as stated in the ISA dealing with audits of financial statements) the risk of an inappropriate conclusion that the subject matter conforms in all material respects with the identified suitable criteria.¹¹⁹

- (185) Furthermore, the definition of high assurance refers to the acquisition of sufficient appropriate evidence to conclude that the subject matter conforms in all material respects with identified suitable criteria,¹²⁰ which in itself does not provide any information as to the degree of assurance obtained in a high assurance engagement.
- (186) In addition, the standard claims that absolute assurance is attainable with determinate subject matter, definitive criteria and comprehensive procedures.¹²¹ This is an interesting claim to make for professional accountants, given the contrary views of the common law legal profession on both sides of the Atlantic that absolute certainty is impossible,¹²² and that because of the inherent limitations of human knowledge, no party is ever required to prove facts to a standard of absolute, mathematical, certainty, respectively.¹²³ In other words, the assurance standard appears to assert that the accounting profession is capable of providing a level of assurance that the legal profession is not.
- (187) The reasonableness of this assertion deserves some analysis. The basis for the assertion that absolute assurance is attainable is that the subject matter is determinate and the criteria definitive. This is, of course, a questionable assumption given the views of logicians on vagueness as described in Section 6 of Part B. For example, accountants may claim that they can obtain absolute assurance on the number of jellybeans in a jar. However, not only do counts and recounts not lead to absolute assurance from a statistical point of view, since there is a chance that the recounts that have been performed were subject to the same error as the initial count – even if each additional recount reduces that likelihood considerably – but there is also the inherent vagueness risk in the definition of a jelly bean, i.e., do jelly bellies or other sugar-coated candies not in the shape of a kidney bean count, do two jelly beans that were fused during the production process count as one or two, etc. Even if the definition were made fairly strict, new sources of vagueness can always be identified for both the subject matter and the criteria.
- (188) Moreover, as was noted in Section 6 of Part B, even if an engagement process is comprehensive, it would still be subject to the limitations imposed by fuzzy logic. Furthermore, circumstances in which a professional accountant is asked to obtain assurance on determinate subject matter and definitive criteria of this

¹¹⁹ IFAC 2001, ISA 100.29-.30

¹²⁰ IFAC 2001, ISA 100.29

¹²¹ IFAC 2001, ISA 100.29

¹²² R.O. Lempert et al., p. 234

¹²³ I. H. Dennis, p. 342.

type is exceedingly rare, since the services of an accountant rather than another layperson are probably not required.

- (189) In other words, it should be recognised that professional accountants are not in a position to completely eliminate the possibility of error – even in situations where that possibility is exceedingly low. Consequently, it defies the imagination as to how an assurance engagement – even with determinate subject matter, definitive criteria and comprehensive procedures – can obtain absolute assurance, when such assurance represents an asymptote that cannot be obtained in practice.
- (190) **Overall, it appears that the ISA do not provide a consistent treatment of reasonable assurance itself or of reasonable assurance in relation to high assurance: reasonable assurance appears to be defined both in absolute (high assurance and low risk) and relative terms (inherent limitations, certain kinds of fraud), which therefore makes a consistent assertion about the IAASB view of reasonable assurance rather difficult. However, claims made in the ISA that in certain circumstances “absolute” assurance is attainable appear to be spurious, since professional accountants or not in a position to completely eliminate the possibility of error – even where that possibility is exceedingly low.**

b) Reasonable and High Assurance in the US

- (191) The concept of reasonable assurance is addressed in US GAAS in AU §110.02, which states that the auditor has a responsibility to perform and plan the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether caused by error or fraud. Immediately thereafter the standard states that because of the nature of audit evidence and the characteristics of fraud, the auditor is able to obtain reasonable, but not absolute, assurance that material misstatements are detected.¹²⁴
- (192) The US GAAS treatment of reasonable assurance is described further in AU §230, which covers due professional care in the performance of work in an audit of financial statements. In particular, AU §230.11 discusses that the use of testing and the application of judgment mean that evidence in an audit of financial statements is persuasive rather than conclusive. Furthermore, AU §230.12 points out that the characteristics of fraud imply that a properly planned and performed audit may not detect a material misstatement because auditing procedures may be ineffective for detecting an intentional misstatement that is concealed by means of falsified documentation (including forgery) or through collusion among client personnel and third parties or among management or employees of the client.¹²⁵ In other words, under US GAAS reasonable assurance encompasses the risk that a material misstatement due to fraud is

¹²⁴ AICPA 2001, AU §110.02

¹²⁵ AICPA 2001, AU § 230.11-.12

less likely to be discovered than a material misstatement due to an unintentional error. This implies that under US GAAS reasonable assurance for unintentional misstatements is likely to be higher than reasonable assurance for intentional misstatements.

- (193) It should be noted that in its recently replaced attest standard the AICPA spoke not of reasonable assurance, but of the reduction of attestation risk to an appropriately low level, which is the equivalent of the highest level of assurance.¹²⁶ In other words, the highest level of assurance is defined by its complement, an appropriately low level of attestation risk. The term reasonable or high assurance is not used, but in the examination report the practitioner should state that he or she believes that the examination provides a reasonable basis for the opinion.¹²⁷ The fact that AT §100 speaks of a reasonable basis for the opinion and the reduction of risk to an appropriately low level suggests that the term “highest level of assurance” represents the highest reasonable level of assurance that can be achieved.
- (194) On the other hand, in its subsequent standard that replaced AT § 100, the AICPA speaks of a restriction of attestation risk to an appropriately low level, which is equivalent to achieving high assurance. In other words, the term “highest level of assurance” was replaced by “high assurance”, but their meaning remained equivalent.¹²⁸
- (195) From a legal point of view, the level of assurance required for an audit of financial statements or for an attest engagement in the US is based on tort law and the required duty of care for professionals. Each of AU § 230.03, AT §100.30 and AT §101.41 contains the following quote from Cooley on Torts, a treatise on a professional’s obligation for due care:

“Every man who offers his services to another and is employed assumes the duty to exercise in the employment such skill as he possesses with reasonable care and diligence. In all these employments where peculiar skill is requisite, if one offers his services, he is understood as holding himself out to the public as possessing the degree of skill commonly possessed by others in the same employment, and if his pretensions are unfounded, he commits a species of fraud upon every man who employs him in reliance on his public profession. But no man, whether skilled or unskilled, undertakes that the task he assumes shall be performed successfully, and without fault or error; he undertakes for good faith and integrity, but not for infallibility, and he is liable to his employer for negligence,

¹²⁶ AICPA 2001, AT §100.55-.56

¹²⁷ AICPA 2001, AT §100.58

¹²⁸ AICPA 2001, AT § 101.68

bad faith, or dishonesty, but not for losses consequent upon pure errors of judgment.”¹²⁹

- (196) This legal treatment of the responsibilities and hence sources of liability for auditors and other practitioners of assurance engagements in the U.S. determines that practitioners are expected to have that degree of skill common to other practitioners, including the application of standards as defined by due process through the profession. Hence, only reasonable assurance can be expected from auditors or practitioners performing examinations, since this is the standard set by the profession. Nevertheless, it should be recognized that it is the courts of law that define whether performance and hence the assurance obtained in a particular case is reasonable in meeting a practitioner’s responsibilities¹³⁰ – and hence while the courts will accept GAAS as prima facie evidence of due care, compliance with GAAS would not be conclusive evidence of due care.¹³¹
- (197) Furthermore, other authoritative bodies such as the SEC have made their views on the assurance that ought to be obtained and hence the meaning of reasonable assurance known by indirect means. For example, in its Accounting Series Release (ASR) No. 19 issued in 1940, the SEC made clear that it expected auditors to detect gross overstatements of assets and profits whether resulting from collusive fraud or otherwise.¹³² The use of the word “gross” suggests that the SEC would not expect auditors to be able to uncover all kinds of material frauds involving collusion or otherwise, but that it views the detection of gross frauds as a reasonable expectation. The view that frauds of a certain size should be detectable when others are not also suggests that the SEC regards reasonable assurance as a range.
- (198) **In conclusion, it appears that the term reasonable assurance in the United States is a flexible concept where the assurance obtained in a particular case depends on the circumstances and high assurance is defined in terms of reasonability. This appears to be true of the standards issued by the AICPA, the legal requirements set by the courts and the requirements set forth by the SEC.**

c) Reasonable and High Assurance in Canada

- (199) Unlike the AICPA, the CICA sets a direct link in its auditing standards between high and reasonable assurance (and takes the auditor perspective of assurance – i.e., the assurance sought by the auditor), which is stated as being less than absolute.¹³³ Furthermore, audit risk is to be reduced to an appropriately low

¹²⁹ AICPA 2001, AU §230.03; AT §100.30 and AT § 101.41

¹³⁰ V.M. O’Reilly et al., p. 4-2

¹³¹ H.R. Cheeseman, p. 881

¹³² V.M. O’Reilly et al., p. 4-4

¹³³ CICA 2001, *Handbook Vol. I*, Section 5090.04

level.¹³⁴ This is described further in the Auditing and Related Service Guideline No. 7, which states that the determination of an appropriately low level of audit risk calls for the exercise of professional judgement on the part of the auditor. Moreover, the Guideline notes that while it is exceedingly difficult to be definitive on this question, it is suggested that most auditors expressing audit risk in quantitative terms would strive to limit such risk to no more than 5 %.¹³⁵ These Sections of and the Guideline in the CICA Handbook suggest that the Canadian profession views reasonable assurance as high assurance, which is less than absolute, but would mostly be viewed as leading to no more than 5 % audit risk – in other words, an absolute concept of reasonable assurance.

- (200) On the other hand, the CICA Handbook also suggested (before the recent revision of this standard in the year 2000) that the auditor is less likely to detect material misstatements arising from fraud because fraud is usually accompanied by acts designed to conceal its existence and that consequently audit procedures that are effective for detecting an unintentional misstatement may be ineffective for an intentional misstatement that is concealed.¹³⁶ On this basis, a more flexible approach to the level of assurance represented by the term reasonable assurance appears to be intimated.
- (201) In February 2002, the CICA issued a revision of Handbook Section 5135 that deals with the auditor's responsibility to consider fraud and error in an audit of financial statements. This revision essentially resulted in a standard that mirrors ISA 240 except for minor editorial changes, differences in terminology and references, and those changes made to ensure that the Handbook Section does not set a standard lower than the previous Section 5135.¹³⁷
- (202) The CICA Handbook also addresses the issue of level of assurance in the Standards for Assurance Engagements. For an audit engagement, the Handbook sets forth that a practitioner provides (in this case, the user's perspective on assurance is applied) a high, though not absolute, level of assurance so that in the practitioner's professional judgement, the risk of an inappropriate conclusion is reduced to a low level. This section also describes further, that the term high level of assurance refers to the highest reasonable level of assurance a practitioner can provide concerning a subject matter and that absolute assurance is not attainable due to various factors. It is also noted that assurance will also be influenced by the degree of precision associated with the subject matter.¹³⁸

¹³⁴ CICA 2001, *Handbook Vol. I*, Section 5130.24

¹³⁵ CICA 2001, *Handbook Vol. II*, AuG 7.16

¹³⁶ CICA 2001, *Handbook Vol. I*, Section 5135.16

¹³⁷ CICA, Website www.cica.ca, Typescript: *The Auditor's Responsibility to Consider Fraud and Error in an Audit of financial Statements*, Section 5135, February 4, 2002

¹³⁸ CICA 2001, *Handbook Vol. I*, Section 5025.11

- (203) The reference to the reduction of engagement risk to a low (instead of appropriately low) level and the reference to a high level of assurance suggest an overall absolute concept of risk and assurance. Yet, by defining high as the highest reasonable level obtainable by the practitioner and by conceding that the degree of precision associated with the subject matter influences the level of assurance, a relative concept of high assurance appears to be taken. Unfortunately, this approach does not appear to be consistent with the definition of moderate assurance provided in the following paragraph (which defines moderate assurance in relation to the reduction of engagement risk to a moderate level)¹³⁹, since the highest reasonable level of assurance for a particular subject matter may well be moderate (i.e., only lead to a reduction of engagement risk to moderate rather than low).
- (204) The legal view of reasonable assurance in Canada is also primarily based on the standards that the profession has set – that is, the general principles of tort and contract law extant in most common law countries also apply to Canada. In particular, the standards of practice set by the profession are prima facie evidence – but not conclusive evidence that the assurance obtained was reasonable in the circumstances. In the case *Sceptre Resources v. Deloitte Haskins & Sells* (1991) 83 Alta. L.R. (2d) 157, the Supreme Court of Alberta stated, “The law allows differing opinions among accountants as it does within the medical and legal professions. Acting in concert with an opinion or practice held by a significant fraction of the profession, is almost always a defence to a suit for malpractice ... The only exception arises where the practice of the profession is totally unreasonable.”¹⁴⁰
- (205) However, as Jackson & Powell On Professional Negligence have pointed out “However, more recently a Canadian court has emphasised that professional standards do not supplant the degree of care called for by the law: the court had in mind the risk that the profession might set a standard lower than the courts thought reasonable (see *Kripps v. Touche Ross & Co.* (1997) 33 B.C.L.R. (3d) 254, 275, British Columbia CA)¹⁴¹. This judicial decision reinforces the view that, while professional standards are prima facie evidence of due care, they are not conclusive of evidence thereof.
- (206) Therefore, it appears that the courts in Canada will examine the circumstances of the case to determine whether the assurance obtained by the practitioner was reasonable in the circumstances, but will refer to professional standards for assistance in this determination.
- (207) **In conclusion, it appears that, while Canadian auditing standards appear to intimate in part that reasonable assurance is high assurance, which is absolute, there are other parts of these standards, in particular in relation**

¹³⁹ CICA 2001, *Handbook Vol. I*, Section 5025.12

¹⁴⁰ Jackson & Powell, p. 1114 and footnote 47, p. 1114

¹⁴¹ Jackson & Powell, p. 1114 and footnote 53, p. 1114

to fraud, which suggest a more flexible approach. Furthermore, the assurance standard takes a flexible approach to the definition of high assurance (the highest which can reasonable be obtained). The courts of law also appear to follow a flexible reasonableness approach to this issue. Overall, there does not appear to be a consistent approach with respect to the assurance perspective (that obtained as opposed to that provided).

d) Reasonable Assurance in the UK

- (208) APB Statement of Auditing Standard (SAS) 100 states that in undertaking an audit of financial statements auditors should carry out procedures designed to obtain sufficient appropriate audit evidence to determine with reasonable confidence whether the financial statements are free of material misstatement (this is the assurance obtained perspective).¹⁴² SAS 100 goes on to say that an audit is designed to provide reasonable assurance (the assurance provided perspective) that the financial statements taken as a whole are free from material misstatement and that auditors provide a level of assurance which is reasonable in the context of an audit of financial statements but, equally, cannot be absolute.¹⁴³
- (209) The following two paragraphs tend to mirror the treatment of the inherent limitations of an audit provided in ISA 100, which suggests that the extent to which audit risk can be reduced (and hence assurance increased) is limited by certain factors.¹⁴⁴ SAS 300.02 sets forth, on the other hand, that auditors should design audit procedures to ensure audit risk is reduced to an acceptably low level¹⁴⁵; the use of the word “acceptably” intimates a range of acceptable low risk levels, depending on the circumstances.
- (210) Both SAS 110.18 and SAS 110.25 state that auditors should perform their audit in order to have a reasonable expectation of detecting material misstatements in the financial statements arising from fraud or error.¹⁴⁶ Nevertheless, this requirement is weakened in SAS 110.18, which also states:

“(...) However, an audit cannot be expected to detect all errors or instances of fraudulent or dishonest conduct. The likelihood of detecting errors is higher than that of detecting fraud... . Consequently, ‘reasonable expectation’ in the context of fraud must be construed having regard to the nature of the fraud and in particular, the degree of collusion, the seniority of those involved and the level of deception concerned.”¹⁴⁷

¹⁴² APB 2002, *Auditing and Reporting*, SAS 100.02; p. 17

¹⁴³ APB 2002, *Auditing and Reporting*, SAS 100.08, p. 18

¹⁴⁴ APB 2002, *Auditing and Reporting*, SAS 100.09-.10, p. 18

¹⁴⁵ APB 2002, *Auditing and Reporting*, SAS 300.02, p. 159

¹⁴⁶ APB 2002, *Auditing and Reporting*, SAS 110.18 & .25, pp. 26 - 27

¹⁴⁷ APB 2002, *Auditing and Reporting*, SAS 110.18, p. 26

- (211) Furthermore, SAS 110.19 states, “This risk [the unavoidable risk that some material misstatements of the financial statements will not be detected] is higher with regard to misstatements resulting from dishonest or fraudulent conduct.”¹⁴⁸ From these statements in SAS 110.18 and 110.19 it is clear that the reasonable expectation of detection of material misstatements in the financial statements due to fraud is lower than that for unintentional errors, which can only lead to the conclusion that reasonable assurance for material misstatements due to fraud is less than that for error.
- (212) The English legal system also sets forth the standard of the duty imposed by the auditor. In particular, the auditor must not issue an opinion that the financial statements give a true and fair view without believing and must not believe without reasonable grounds. Furthermore, the duty is only to take reasonable care, for this is not an area of strict liability. In line with the low standard approved elsewhere in the case for directors, the courts have set the auditor’s duty to detect fraud at a low level.¹⁴⁹ Nevertheless, the last assertion with respect to the duty to detect fraud requires additional explanation.
- (213) In relying on *Re Kingston Cotton Mill* for a decision in *Fomento (Sterling Area) v. Selsdon Fountain Pen Co. Ltd.*, Viscount Simmonds laid down the adage that an auditor is a watchdog, not a bloodhound. Nevertheless, as the court decision on *Re Thomas Gerred & Son Ltd.* demonstrated, although the duty is only to conduct the audit with reasonable care and skill, standards have risen since the days of *Re Kingston Cotton Mill*.¹⁵⁰
- (214) The sources of evidence for whether the standard of skill and care was breached or not were set forth in *Dairy Containers Ltd. v. NZI Bank Ltd*: the standard required as a matter of contract and under relevant statutes or regulations, expert evidence, auditing and accounting standards and the defendants internal office manuals.¹⁵¹ Auditing standards do not directly have the force of law, but compliance with them is powerful evidence that the auditor has acted reasonably, whilst failure to comply without adequate explanation is powerful evidence to the contrary.¹⁵² In this sense, the courts in the UK have indirectly recognized the concept of reasonable assurance as described in UK auditing standards. With respect to fraud, a quoted court case in Australia took the view that in planning and carrying out the audit, an auditor must pay due regard to the possibility of error and fraud.¹⁵³
- (215) **In conclusion, the fact that the courts in the UK are the UK’s final arbiters of what is reasonable assurance in a particular set of circumstances and**

¹⁴⁸ APB 2002, *Auditing and Reporting*, SAS 110.19, p. 26

¹⁴⁹ R. Hodgins ed., pp. 272-273

¹⁵⁰ R. Hodgins ed., p. 273

¹⁵¹ Jackson & Powell, pp. 1113-1114

¹⁵² Jackson & Powell, pp. 1115-1116

¹⁵³ Jackson & Powell, p. 1119

the fact that UK auditing standards tend towards a flexible approach to reasonability based on the nature of the potential misstatement, it appears that in the UK reasonable assurance represents a flexible concept based upon the circumstances. The UK does not appear to address the issue of high assurance.

e) High Assurance Internationally Based on the IAPC Research Study

- (216) A survey of accounting firm views on moderate and high assurance was carried out as part of the IAASB Study 1. In particular, ten firms (the so-called big five and five mid-sized firms) were asked to respond from 10 countries – that is, a total of 120 firms were asked to respond to the survey. The overall response rate was 46.6%.¹⁵⁴
- (217) One of the questions asked was: “What is the percentage of confidence you believe you provide in case of a moderate level of assurance engagement and in case of a high level of assurance engagement?”¹⁵⁵. The answers of the practitioners were as follows: for high assurance the arithmetic mean was 88 % with a standard deviation of 8 percentage points; for moderate assurance the arithmetic mean was 60 % with a standard deviation of 14 percentage points¹⁵⁶. It is clear that therefore a significant majority of practitioners appear to believe that high assurance is an absolute concept ranging somewhere between 80 % and 96 %. This view is at variance with a definition of high in terms of its reasonableness, as was noted in the previous Sections for the assurance standard in Canada and the attest standard in the United States.
- (218) **In conclusion, unless specifically defined otherwise in a standard, it appears that high assurance is generally viewed as an absolute concept represented by a range rather than as a relative concept like reasonable assurance, in which the level actually achieved depends upon the circumstances (i.e., is context-based).**
- (219) **As an overall conclusion to this very brief review of the relationship between high and reasonable assurance in the ISA and different jurisdictions, it appears that both the auditing standards and courts in the major common law countries accept the view, either implicitly or explicitly, that reasonable assurance is a relative concept based upon what is reasonable in a particular set of circumstances (i.e., a context-based view of reasonable assurance). Furthermore, unless it is defined in terms of reasonability, high assurance is, in contrast to reasonable assurance, a fairly absolute concept that does not vary with the circumstances.**

¹⁵⁴ IAASB of IFAC 2002, *Study 1*, p. 89

¹⁵⁵ IAASB of IFAC 2002, *Study 1*, p. 96

¹⁵⁶ IAASB of IFAC 2002, *Study 1*, p. 96

3. REASONABLE AND HIGH ASSURANCE VS. BEYOND ANY REASONABLE DOUBT AND VIRTUAL CERTAINTY

What is the difference between reasonable or high assurance and the level of assurance obtained by a criminal court of law for a conviction (beyond any reasonable doubt) and how do these concepts relate to high assurance and virtual certainty?

- (220) There is, of course, the question as to where reasonable assurance lies in relation to the standard of proof used by the courts in common law jurisdictions (and hence the level of assurance often required for conclusions drawn from a forensic audit) in determining a criminal conviction: beyond any reasonable doubt¹⁵⁷. A law dictionary defines “beyond a reasonable doubt as “... the standard used by a jury to determine whether a criminal defendant is guilty. In deciding whether guilt has been proved beyond any reasonable doubt, the jury must begin with the presumption that the defendant is innocent.”¹⁵⁸ By definition, “beyond a reasonable doubt “ means the absence of reasonable doubt. Reasonable doubt is, in turn, defined as that which prevents one from being firmly convinced of a defendant’s guilt, or the belief that there is a real possibility that the defendant is not guilty – that is, it is a substantial doubt.¹⁵⁹
- (221) Furthermore, “beyond any reasonable doubt” has been defined as being less than beyond any possible or imaginary doubt.¹⁶⁰ This suggests that the standard “beyond any reasonable doubt” is somewhat less than virtual certainty (certain but for any possible or remotely possible doubt), with certainty being, of course, the equivalent of absolute assurance, which this Paper has concluded is an unattainable asymptote in practice. As was noted previously, the use of “reasonable” in connection with the “rule of reasonable certainty” suggests that reasonable certainty is more than just conjecture or likelihood or even a probability of an event.¹⁶¹ Yet, as this Paper had also noted previously on this issue, the common law courts do not appear to relate this definition of reasonable certainty directly to reasonable assurance, but appear to apply a flexible concept of reasonable assurance, in that the assurance that is reasonable depends on the given circumstances (see the previous Section).
- (222) Hence, the relative relationship between reasonable assurance and beyond any reasonable doubt is more likely to be found by analysing differences in the quantity and quality of evidence obtained, the nature of the subject matter and criteria and the nature of the process involved, including the general

¹⁵⁷ H.R. Davia et al., p. 268

¹⁵⁸ Garner et al., *Black’s Law Dictionary*, Seventh Edition, p. 1272

¹⁵⁹ Garner et al., *Black’s Law Dictionary*, Seventh Edition, p. 1272

¹⁶⁰ Garner et al., *Black’s Law Dictionary*, Seventh Edition, p. 1272

¹⁶¹ Garner et al., *Black’s Law Dictionary*, Sixth Edition, p. 1265

presumptions made in the process. The general presumptions will be dealt with in the following Section.

- (223) The common law courts have recognised that the acquisition of reasonable assurance in an audit of financial statements involves testing, including sampling transactions and balances, rather than examining every transaction or balance contained in the financial statements.¹⁶² This is in contrast to the situation in a criminal case before the courts, in which all permissible evidence relevant to the determination of guilt or innocence is examined.¹⁶³ Nevertheless, it should be noted that even in criminal cases the rules of evidence are to be construed so as to ensure not only administrative fairness, but also the elimination of unjustifiable expense and delay.¹⁶⁴ Furthermore, by means of warrants¹⁶⁵ or a court order, the courts are in a position to obtain evidence that would not normally be available to an auditor. Consequently, proceedings before a criminal court generally require and obtain a greater quantity and quality of evidence to reach a decision on a criminal matter than auditors require to provide an opinion on financial statements.
- (224) In addition, the common law courts have very strict rules on permissible evidence. For example, so-called hearsay evidence is not permitted in many circumstances,¹⁶⁶ whereas an auditor may consider rumour and other soft evidence in determining the audit procedures that ought to be performed and hence in forming an opinion (in fact, Mautz and Sharaf had defined audit evidence as “all influences on the mind of the auditor”¹⁶⁷). On this basis, the courts of common law appear to require (and by means of a court order or a warrant can obtain) a much higher quality of evidence (in terms of reliability and credibility) than that which an auditor of financial statements can or is required to obtain. This difference in the quality of evidence probably accounts for the ISA and the national audit standards in the major common law jurisdictions stating that audit evidence (or evidence from assurance services) is persuasive rather than conclusive (or, pursuant to US GAAS, convincing).¹⁶⁸
- (225) Barnes, in particular, notes that persuasive audit evidence is almost always less than “beyond any reasonable doubt”, but also states that it is more than the civil standard of the “balance of probabilities”.¹⁶⁹ The conclusion that persuasive evidence is almost always less than “beyond any reasonable doubt” is consistent with the conclusions in the following Sections of this Paper, but the

¹⁶² R. Hodgins, ed., p. 272

¹⁶³ R.O. Lempert et al., p. 204

¹⁶⁴ J.B. Kadane and D. A. Schum, p. 282

¹⁶⁵ H.R. Cheeseman, p. 153

¹⁶⁶ H.R. Davia et al., pp. 275-283

¹⁶⁷ W.J. Smieliauskas, p. 32-33

¹⁶⁸ IFAC 2001, ISA 200.09 and ISA 100.28; ACPA 2001, AU §230.11; CICA 2001, *Handbook Vol. I*, Section 5090.04; APB 2002, *Auditing and Reporting*, SAS 100.10

¹⁶⁹ D.M. Barnes, pp. 43-44

support for the assertion that reasonable assurance is more than the “balance of the probabilities” appears to be weak.

- (226) The common law courts deal with a certain class of subject matter (persons¹⁷⁰) and properties (the acts committed by these persons¹⁷¹) associated therewith in criminal cases. Auditors of financial statements deal with a different class of subject matter (financial statements) and a certain property (their presentation) associated therewith. In both cases, the subject matter can usually be precisely identified or defined. In an audit of financial statements, however, the presentation of a financial statement can generally be attributed to that particular financial statement more easily than acts can be attributed to persons. In other words, the courts generally decide based on the evidence as to whether or not a particular person committed particular acts. This means that the connection between the property being examined and the subject matter is more reliable for financial statement audits.
- (227) Nevertheless, for audits of financial statements, the manifestation (fairness or a true and fair view) of the property (presentation) being evaluated related to the subject matter (the financial statements) do not only include facts, but also matters of opinion (e.g., is the financial statement fairly presented with an estimated useful life of a particular fixed asset set at ten years or twenty years?). Yet, even in criminal cases before the courts, opinion testimony does have a role to play.¹⁷² Hence, differences between reasonable assurance and the legal concept of being beyond any reasonable doubt are not to be found in differences in the underlying subject matter or the properties associated therewith.
- (228) Whether or not auditors of financial statements and the common law courts apply different kinds of criteria in evaluating assertions generated by the application of the criteria to certain properties of subject matter appears to depend on the nature of the financial reporting framework. For those jurisdictions in which financial reporting frameworks have a legal basis rather than an effective rule of economic substance over legal form, there would presumably be little difference between the nature of the criteria applied by auditors and the courts: the law. In those common law jurisdictions, such as the US and Canada (and, to some extent, the UK with respect to the true and fair override over specific accounting legislation), in which there is a more or less clear separation between the accounting and legal professions, legislation and regulation of accounting issues is at a minimum and the rule of economic substance over legal form effectively applies, it might be argued that accounting criteria (generally accepted accounting principles) are somewhat less reliable than some legal criteria.

¹⁷⁰ H.R. Cheeseman, p. 152

¹⁷¹ H.R. Cheeseman, p. 139

¹⁷² H.R. Davia et al., pp. 279-280

- (229) On the other hand, most common law jurisdictions apply the use of the concept of “reasonableness”¹⁷³ in the law, which by definition is a vague concept for areas in which no judicial decisions have been issued. Consequently, it might also be argued that legal criteria in substance are not significantly more reliable than accounting criteria, for both are subject to the exercise of considerable professional judgement. Consequently, seeking differences between beyond any reasonable doubt and reasonable assurance by means of the different nature of accounting and legal criteria does not appear to be a fruitful exercise.
- (230) Audit and legal processes, on the other hand, do appear to be very different. The commonly applied audit process (quality control, acceptance of engagement, audit planning, interim audit procedures, year-end audit procedures, review and issuance of the report) is focused on obtaining sufficient appropriate evidence to support an audit opinion on the financial statements with a relatively short time after the end of the balance sheet date. Furthermore, by definition, the precision of some of the judgments made, such as accounting estimates, will depend upon the outcomes of future events (e.g., for guarantees, etc.), since the audit opinion is given before the outcome of these events is known. In contrast, the legal process for criminal cases appears to be geared to ensuring that the quantity and quality of evidence obtained about past actions is high and that the judgment process leads to high quality conclusions based on that evidence by means of a very formal process (e.g., in the U.S., the pre-trial process, including investigation, arrest, indictment and arraignment¹⁷⁴; and the trial process itself, including jury selection, opening statements, the prosecution’s and defendant’s cases – including cross-examination – rebuttal and rejoinder, closing arguments jury instructions, jury deliberation and entry of judgment¹⁷⁵). It is apparent that, compared to a criminal legal process, in the audit of financial statements a decreased likelihood of an inappropriate unqualified opinion – both due to a lower level of assurance and less precision – is sacrificed for timeliness, so that the financial statements can be provided to the users in audited form before they lose their relevance to those users.
- (231) In the previous subsection, it was noted that practitioners view high assurance as being a range somewhere between 80 % and 96 %, which, at the upper end, allows a risk of being wrong of at least 4 %. This suggests that high assurance is viewed as being definitely less than virtual certainty (i.e., the mere possibility – in the sense of a remote possibility – of being wrong). In addition, it might be argued that it is unlikely that courts would convict a defendant of a crime if, based on the cumulative weight of all of the evidence, there is still a one in twenty-five chance of convicting the wrong person (some have argued that a chance less than one in one hundred may be more appropriate, even though

¹⁷³ Garner et al., *Black’s Law Dictionary*, Seventh Edition, pp. 1272

¹⁷⁴ H.R. Cheeseman, pp. 141-142

¹⁷⁵ H.R. Cheeseman, pp. 35-36

the courts in the UK appear to have taken a dim view of a probabilistic interpretation of these matters),¹⁷⁶: then this means that high assurance can also be viewed as being less than beyond any reasonable doubt. This conclusion is consistent with that asserted by Barnes above.

- (232) **In conclusion, it appears that criminal courts seek a greater quantity of evidence of greater quality (credible and reliable) in a much more stringent evaluation process of past events than generally obtained for a financial statement audit. Compared to criminal legal processes, in audits of financial statements a decreased likelihood of an inappropriate unqualified opinion – both due to a lower level of assurance and less precision – is sacrificed for timeliness, so that the financial statements can be provided to users in audited form before they lose their relevance to those users.**
- (233) **Furthermore, in a Bayesian context high assurance appears to represent a level of assurance that is less than that represented by virtual certainty and beyond any reasonable doubt. In other words, in a Bayesian context beyond any reasonable doubt represents a level of assurance that probably exceeds that which is termed “high” as defined in the previous Section, but falls short of virtual certainty. Furthermore, unlike absolute assurance, beyond any reasonable doubt appears to represent an absolute concept in that, regardless of the circumstances of the case, there is a lower bound of assurance below which a person cannot be convicted.**

4. THE PRESUMPTION OF INNOCENCE VS. OF MANAGEMENT’S GOOD FAITH AND THE CONCEPT OF PROFESSIONAL SCEPTICISM

How does the presumption of innocence in a criminal case relate to the presumptions in an audit, whether neutral or a presumption of management’s good faith, and the concept of professional scepticism?

- (234) Another consideration is the general presumption under which the common law courts form their judgements in criminal cases compared to the general presumption applied by auditors in auditing financial statements or applied by practitioners in assurance engagements. In common law criminal courts, the defendant is presumed innocent: this implies that the prosecution bears the burden of proof.¹⁷⁷ In contrast, in a financial statement audit under the ISA or US GAAS, the auditor assumes neither that management is dishonest nor

¹⁷⁶ I.H. Dennis, pp. 107-109

¹⁷⁷ H.R. Cheeseman, p. 138

assumes unquestioned honesty.^{178 179} This position (the practitioner neither assumes that the responsible party is dishonest nor assumes unquestioned honesty) is also taken by ISA 100 for high assurance engagements.¹⁸⁰ Auditing standards in the UK do not appear to address this issue directly. Furthermore, neither the attestation standards in the U.S. (AT §101) nor the assurance standards (as opposed to the standards for audit of financial statements) in Canada (CICA Handbook Section 5025) address the auditor's presumptions with respect to management.

- (235) In this respect, there is a question as to what “neither assumes dishonesty nor unquestioned honesty” means. Some interpret this to mean that the auditor of financial statements takes a neutral stance in performing the audit (planning, collecting evidence, drawing conclusions and forming an opinion). Others point out that the addition of the adjective “unquestioned” prior to “honesty” implies that the stance taken by the auditor is not perfectly neutral, since presumed honesty rather than a presumption of unquestioned honesty would be the opposite of presumed dishonesty. In any case, this stance, whether it is deemed to be perfectly neutral or slightly biased in favour of a presumption of management's honesty, is considerably distant from a presumption of management's innocence, and hence honesty.
- (236) Furthermore, there is a question as to who bears the burden of persuasion in this case – the auditor, or management that prepared the financial statements? Since the books and records supporting the preparation of the financial statements are under the complete control of management, logic dictates that it is management that ought to bear the burden of persuading the auditor that the financial statements meet the requirements of the financial reporting framework applied, rather than having the auditor bear the burden of persuading management that they are or are not (although, practitioners may argue that having come to the conclusion that the financial statements are materially misstated, in practice the auditor usually bears the burden of persuading management of this – usually against additional evidence then provided by management to support its case). Nevertheless, it should be recognised that even if the burden of proof towards the auditor is borne by management, this does not relieve the auditor from obtaining sufficient appropriate audit evidence to support his or her audit opinion.
- (237) In Canada, Handbook Section 5090.05 as amended in February 2002 also states that the auditor assumes neither that management is dishonest nor assumes unquestioned honesty. At the same time, the following sentence in that Standard asserts that the auditor normally designs auditing procedures on

¹⁷⁸ IFAC 2001, ISA 200.06

¹⁷⁹ AICPA 2001, AU §230.09

¹⁸⁰ IFAC 2001, ISA 100.42

the assumption of management's good faith¹⁸¹, which, at least on the surface, appears to contradict the previous statement, particularly given its description in the next paragraph of the Standard. The following paragraph notes:

"The assumption of management's good faith means the auditor, in the absence of evidence to the contrary, can accept accounting records and documentation as genuine and representations as complete and truthful. This assumption is normally necessary for an audit to be economically and operationally feasible. However, representations from management are not a substitute for obtaining sufficient appropriate audit evidence to draw reasonable conclusions on which to base the audit opinion."¹⁸²

A similar view is expressed in the revised CICA Handbook Section 5135.19.¹⁸³

- (238) UK auditing standards also state that unless the audit reveals evidence to the contrary, the auditor accepts representations as truthful, and records and documents as genuine.¹⁸⁴ Likewise, ISA 240 recognizes that, unless the audit reveals evidence to the contrary, the auditor is entitled to accept records and documents as genuine and that accordingly, an audit performed in accordance with the ISA rarely contemplates authentication of documentation, nor are auditors trained as, or expected to be, experts in such authentication.¹⁸⁵ Both of these positions suggest an implicit presumption of management's good faith – that is, a weak presumption of innocence with respect to fraud that no longer holds true if evidence to the contrary comes to the attention of the auditor. The explicit retention of the concept of management's good faith in Canada appears to rest on the acceptance of this concept by the Canadian courts.
- (239) Nevertheless, the revised CICA Handbook Section 5135.32 does require the auditor to consider whether fraud risk factors are present that indicate the possibility of fraud when considering the risk of material misstatement resulting from fraud.¹⁸⁶ Similarly, ISA 240 states that when the auditor considers the risk of material misstatement resulting from fraud, the auditor should consider whether fraud risk factors are present that indicate the possibility of fraud.¹⁸⁷ Consequently, it appears that under both the ISA and Canadian GAAS an auditor must actively consider fraud risk factors in determining whether further evidence may be required before reaching a conclusion that the presumption of management's good faith is valid. This means that the presumption of management's good faith can only be relied upon to the extent that the

¹⁸¹ CICA, , Typescript: *The Auditor's Responsibility to Consider Fraud and Error in an Audit of financial Statements*, Section 5090.05, www.cica.ca, February 4, 2002

¹⁸² CICA 2001, *Handbook Vol. I*, Section 5090.06

¹⁸³ CICA 2001, *Handbook Vol. I*, Section 5135.19

¹⁸⁴ APB 2001, *Auditing and Reporting*, SAS 110.27

¹⁸⁵ IFAC 2001, ISA 240.19

¹⁸⁶ CICA 2001, *Handbook Vol. I*, Section 5135.32

¹⁸⁷ IFAC 2001, ISA 240.32

consideration of fraud risk factors and the results of audit procedures (both those resulting from the consideration of fraud risk factors and others) allow such reliance.

- (240) It should be noted that UK auditing standards, while not addressing fraud risk factors, do not take a passive approach to fraud risk. Auditors are required to assess the risk that fraud may cause the financial statements to contain material misstatements¹⁸⁸ and should design audit procedures based on their risk assessment so as to have a reasonable expectation of detecting misstatements arising from fraud.¹⁸⁹ Furthermore, where the risk assessment or audit evidence suggest that there may be fraudulent or dishonest conduct by directors or management, the auditor increases the level of professional scepticism (which will be discussed later in this Section) and the degree to which evidence independent of the entity is sought and places less emphasis on management representations and documents generated by the entity.¹⁹⁰ This treatment suggests that, with the exception of an explicit assessment or consideration of fraud risk factors, the approaches with respect to the presumption of management's good faith and fraud in the ISA, Canadian GAAS and UK auditing standards are similar.
- (241) US GAAS also recognizes that an audit conducted in accordance with US GAAS rarely involves authentication of documentation and that auditors are not trained as or expected to be experts in such authentication¹⁹¹. However, US GAAS also requires auditors to assess the risk of a material misstatement due to fraud and consider the fraud risk factors in that assessment.¹⁹² Consequently, although no reliance on the genuineness of documents is explicitly asserted, it might be argued that the US position is not in substance that much different from the ISA, Canadian GAAS or UK auditing standards.
- (242) The presumption about management's good faith or honesty is also closely related to the concept of an attitude of professional scepticism. ISA 200 relates an attitude of professional scepticism to the auditor's recognition that circumstances may exist that cause the financial statements to be materially misstated and that the auditor makes a critical assessment throughout the audit process, with a questioning mind, of the validity of audit evidence obtained and is alert to audit evidence that contradicts or brings into question the reliability of documents or management representations. This attitude should reduce the risk of the auditor overlooking suspicious circumstances, of over-generalising when drawing conclusions from audit observations, and of using faulty assumptions in determining the nature, timing and extent of the audit procedures and

¹⁸⁸ APB 2001, *Auditing and Reporting*, SAS 110.24

¹⁸⁹ APB 2001, *Auditing and Reporting*, SAS 110.25

¹⁹⁰ APB 2001, *Auditing and Reporting*, SAS 110.28

¹⁹¹ AICPA 2001, AU §316.07

¹⁹² AICPA 2001, AU §316.12

evaluating the results thereof. Furthermore, this means that representations from management are not a substitute for obtaining sufficient appropriate audit evidence to be able to draw reasonable conclusions on which to base the audit opinion.¹⁹³ Likewise, ISA 100 states that the attitude of professional scepticism includes a questioning mind and a critical assessment of evidence and that without this attitude, the practitioner may not be alert to circumstances that lead to a suspicion, and may draw inappropriate conclusions from the evidence obtained.¹⁹⁴

- (243) Given the derivation of the amended CICA Handbook Section 5135 from ISA 240, it is not surprising that both the CICA Handbook Sections 5090.05 and .07 essentially reflect the requirements of ISA 200. Furthermore, the treatment of professional scepticism in CICA Handbook Section 5135.18 corresponds to that in ISA 240.18.

- (244) In the UK, SAS 100 states:

“Auditors recognise the possibility that material misstatements may exist and plan and perform the audit with that possibility in mind. This involves examining critically and with professional scepticism the information and explanations provided and not assuming that they are necessarily correct.”¹⁹⁵

SAS 110 adds that auditors plan and perform the audit with an attitude of professional scepticism, recognising that conditions or events may be found that indicate fraud or error may exist.¹⁹⁶

- (245) US GAAS links the exercise of professional scepticism to due professional care¹⁹⁷ and emphasizes that such scepticism should be exercised throughout the audit process¹⁹⁸. Professional scepticism is defined as an attitude that includes a questioning mind and a critical assessment of audit evidence.¹⁹⁹ In addition, in exercising professional scepticism, the auditor should not be satisfied with less than persuasive evidence because of a belief that management is honest.²⁰⁰
- (246) It should be pointed out that neither the attestation standards in the U.S. (AT § 101) nor the assurance standards in Canada (CICA Handbook Section 5025) address professional scepticism.

¹⁹³ IFAC 2001, ISA 200.06

¹⁹⁴ IFAC 2001, ISA 100.42

¹⁹⁵ APB 2001, *Auditing and Reporting*, SAS 100.11

¹⁹⁶ APB 2001, *Auditing and Reporting*, SAS 110.27

¹⁹⁷ AICPA 2001, AU §230.07

¹⁹⁸ AICPA 2001, AU §230.08

¹⁹⁹ AICPA 2001, AU §230.07

²⁰⁰ AICPA 2001, AU §230.09

- (247) In conclusion, while, under the presumption of innocence, the courts would need to have conclusive evidence to overturn that presumption to find someone guilty of a crime without any reasonable doubt, auditing standards appear to claim a more neutral stance with respect to management's honesty, which eases the burden of obtaining evidence to support the opinion that the financial statements are not materially misstated. Nevertheless, it is also pointed out that from a logical point of view, the burden of persuasion ought to be borne by management, which is responsible for their preparation, rather than by the auditor, but this does not relieve the auditor from the burden of persuasion that sufficient appropriate audit evidence was obtained to support the audit opinion. Furthermore, whether or not explicitly stated in the auditing standards, in the major common law jurisdictions auditors appear to be able to rely on management's good faith to some extent with respect to fraud, since, in the absence of evidence to the contrary, auditors may generally presume that accounting records and documentation are genuine. This reliance, however, is limited by the results of the analysis of fraud risk factors and of any audit procedures performed during the course of the audit, and the attitude of professional scepticism, by means of which the auditor remains alert to evidence contrary to this presumption. Overall, this treatment reinforces the conclusions of the previous Section that beyond any reasonable doubt represents less assurance than virtual certainty but more than high assurance. Furthermore, unless there are exceptional circumstances, it appears therefore that reasonable assurance in an audit of financial statements would ordinarily be construed as being less than that obtained under beyond any reasonable doubt.
- (248) The fact that auditors are ordinarily required to obtain only reasonable assurance to support their audit opinion, rather than to meet a criminal standard of proof so that they believe beyond any reasonable doubt that the financial statements are not materially misstated, implies that auditors ordinarily are able to issue their audit report with an unqualified opinion even when they may still retain some reasonable doubt. This is a significant insight, for it means that auditors are generally not required to dispel every reasonable doubt that the financial statements are not materially misstated.
5. **REASONABLE AND HIGH ASSURANCE VS. PROBABLE, MORE LIKELY THAN NOT, AND THE PREPONDERANCE OF THE EVIDENCE**

What is the difference between reasonable or high assurance and the use of the terms probable, more likely than not and the preponderance of the evidence.

- (249) In the previous Sections, the concept of reasonable assurance was described and compared to high assurance, beyond any reasonable doubt and virtual certainty. There are, however, other qualitative concepts relating to the degree of certainty, including probable, more likely than not and the preponderance of the evidence.
- (250) A dictionary defines “probable” as “1. Having more evidence than the contrary, but not proof; likely to be true or to happen, but leaving room for doubt; 2. That renders something worthy of belief, but falls short of demonstration.” The dictionary also compares probable to likely and possible, by stating that all three relate to the magnitude of a probability. “Something probable has a chance of being or occurring greater than one half; likely has much the same meaning, but suggests a judgement based on less precise estimate. A possible thing may occur, but our expectation is less than one half.”²⁰¹ Furthermore, the dictionary suggests that the word “apparent” conveys more assurance than “seeming”, but less than “probable”²⁰². The meaning of the term “more likely than not”, on the other hand, is apparent from the words used: at least more likely than an equal balance of the probabilities for and against (i.e., a likelihood or certainty of 50 %), which is equivalent to “probable”
- (251) The common law courts also address levels of certainty other than “beyond any reasonable doubt”. In particular, in civil, as opposed to criminal, cases these courts will apply the “preponderance of the evidence” rule (also termed preponderance of proof or balance of probability)²⁰³. This rule has been defined as:

“The greater weight of the evidence; superior evidentiary weight that, though not sufficient to free the mind wholly from all reasonable doubt, is still sufficient to incline a fair and impartial mind to one side of the issue rather than the other. This is the burden of proof in a civil trial, in which the jury is instructed to find for the party that, on the whole, has the stronger evidence, however slight the edge may be”.²⁰⁴

This definition implies that, from a Bayesian perspective, the preponderance of the evidence rule relates to a probability of at least more likely than not – that is, probable.

- (252) This contrasts to the legal definition of “clear and convincing evidence”, which is defined as follows:

²⁰¹ Funk & Wagnalls Canadian College Dictionary, 1989, p. 1073

²⁰² Funk & Wagnalls Canadian College Dictionary, 1989, p. 70

²⁰³ Garner et al., *Black’s Law Dictionary*, Seventh Edition, p. 1201

²⁰⁴ Garner et al., *Black’s Law Dictionary*, Seventh Edition, p. 1201

“Evidence indicating that the thing to be proved is highly probable or reasonably certain. This is a greater burden than preponderance of the evidence, the standard applied in most civil trials, but less than evidence beyond a reasonable doubt, the norm for criminal trials.”²⁰⁵

In other words, “beyond any reasonable doubt” requires a higher standard of evidence than “clear and convincing evidence” (which, from a Bayesian perspective is equivalent to highly probable or reasonably certain), which in turn requires a higher standard of evidence than the “preponderance of the evidence” (which, from a Bayesian perspective encompasses both probable and more likely than not).

- (253) In Section 3 it was concluded that reasonable assurance is a relative concept that depends upon the circumstances. This logically implies that, depending on the circumstances, from a Bayesian perspective reasonable assurance may range from virtual certainty in rare cases to more likely than not. Whether or not reasonable assurance may also range below more likely than not is an issue that will be discussed in a subsequent Section. On the other hand, as noted in Section 3, from a Bayesian perspective high assurance appears to represent less than virtual certainty or beyond any reasonable doubt, but more than just more likely than not. In fact, based on the discussion in the previous paragraph, high assurance appears to be equivalent to the legal concept of clear and convincing evidence (highly probable or reasonably certain).
- (254) The view that audit evidence is persuasive rather than conclusive (or convincing, in the U.S.) as noted in Section 3 in connection with the meaning of clear and convincing evidence as noted above suggests that an auditor need not necessarily obtain clear and convincing evidence to support an audit opinion if it would not be considered reasonable for the auditor to obtain such evidence in the circumstances. While the circumstances may dictate that an auditor should obtain clear and convincing evidence, the nature of the evidence (only persuasive) may preclude this.
- (255) Consequently, where the auditor may only be able to obtain less than clear and convincing evidence that is at least persuasive, the auditor would still acquire reasonable assurance. This also suggests that in certain circumstances, where the evidence is persuasive rather than conclusive or convincing, the auditor would be able to issue an unqualified opinion for those cases in which the auditor has more than just reasonable doubt (see the discussion in the previous Section on the auditor’s retention of reasonable doubt) that the financial statements are not materially misstated, but is not in a position to dispel this doubt due to the nature of the evidence. Nevertheless, this would not lead to a scope limitation, since the persuasiveness of the evidence still allows the acquisition of reasonable assurance.

²⁰⁵ Garner et al., *Black’s Law Dictionary*, Seventh Edition, p. 577

- (256) In this respect, the persuasive rather than conclusive or convincing nature of audit evidence appears to result from the nature of accounting frameworks, the application of which does not always lead to a clear and convincing case. For example, deciding whether or not a particular transaction leads to revenue recognition when applying a specific standard under a particular accounting framework is often a matter of judgement: experienced, competent, neutral accountants may have reasonable disagreements about these matters. Rather, it is important that, in the professional opinion of the reporting accountant, the decision taken is supported by more persuasive evidence than the alternative. It should be noted that this decision-making perspective closely represents the Baconian view of assurance and risk, in which the alternatives are compared on an ordinal basis (i.e., by degree of persuasion). This also suggests that – contrary to the position espoused by Barnes as noted in Section 3, there may be circumstances where decisions taken by practitioners lead to an assurance that is no greater than the balance of the probabilities.
- (257) The persuasive rather than conclusive or convincing nature of audit evidence due to the nature of the accounting frameworks applied as criteria in evaluating financial statements also leads to the view that the assurance obtainable cannot be separated from the risks and hence uncertainties associated with the application of the criteria to the subject matter. This supports the view that audit risk is not separable from these uncertainties, and perhaps ought to incorporate these in some way (see Section 4 of Part B).
- (258) **An examination of the terms “probable”, “more likely than not”, the “preponderance of the evidence”, “clear and convincing evidence”, “persuasive” and “conclusive” suggests that in many cases auditors are only a position to obtain persuasive evidence that more closely reflects the standard of proof required by the common law courts in civil cases (“the preponderance of the evidence”) rather than “conclusive” or “clear and convincing evidence”. The latter represent a lower standard than beyond any reasonable doubt but higher than the preponderance of the evidence. Consequently, the concept of reasonable assurance appears to extend from “beyond any reasonable doubt” to “preponderance of the evidence” based upon the circumstances.**
- (259) **In other words, from a Bayesian perspective the concept of reasonable assurance can also apply to situations in which the level of certainty is probable or more likely than not, which can be considered equivalent to the legal concept of the preponderance of the evidence. Furthermore, it also covers many situations in which the level of certainty is highly probable (reasonable certainty). High assurance, on the other hand, which represents a level of assurance less than beyond any reasonable doubt but greater than just more likely than not appears to be equivalent to the legal concept of clear and convincing evidence (from a Bayesian perspective, reasonable certainty or highly probable).**

- (260) Since audit evidence need only be persuasive rather than conclusive or convincing to obtain reasonable assurance, in certain circumstances, auditors are in a position to issue unqualified audit opinions even for cases in which there is more than just reasonable doubt that the financial statements are not materially misstated. This is primarily due to the limitations of audit evidence caused by the nature of the criteria (accounting frameworks) applied, which suggests that audit risk is not separable from the uncertainties associated with the application of the criteria to the subject matter.

D. MODERATE ASSURANCE VS. REASONABLE AND HIGH ASSURANCE

1. DEFINITION OF THE TERM “MODERATE”

Issue: What does the term “moderate ” mean in relation to assurance, and in particular, in relation to high and reasonable assurance?

- (261) The dictionary definition of the word “moderate” states: “... 3. Of medium or average quality, quantity, scope, extent, etc”.²⁰⁶ There does not appear to be a particularly legal definition of the term moderate. Hence, by dictionary definition, moderate cannot be high or low.
- (262) In Part C of this Chapter, it was concluded that from a Bayesian perspective high assurance is an absolute concept that relates to a highly probable level of certainty (reasonable certainty), which the legal profession associates with the term “clear and convincing evidence”, and that this level of assurance is less than virtual certainty and beyond any reasonable doubt, but is greater than just probable or more likely than not, which the legal profession associates with the term “the preponderance of the evidence”. On the other hand, it was also concluded that reasonable assurance represents a level of assurance that depends upon the circumstances and therefore encompass the levels of assurance up to (in rare cases) virtual certainty (at this stage, the lower bound of reasonable assurance has not yet been addressed). Based on these conclusions and the definition of the term “moderate”, it appears that moderate assurance must be less than high – i.e., less than highly probable or reasonably certain (that is, the evidence is less than clear and convincing). Furthermore, it also suggests that moderate must be greater than just low.
- (263) **In conclusion, it appears that, based on the dictionary definition of the term “moderate”, moderate assurance is associated with a level of assurance that is less than high (i.e., less than highly probable or reasonable certain – that is, the evidence is less than clear and convincing), but greater than low. This definition implies that the lower bound of high would always be greater than the upper bound of moderate, and the lower bound of moderate would always be greater than the upper bound of low.**

²⁰⁶ Funk & Wagnall's Canadian College Dictionary, 1989, p. 870

2. MODERATE ASSURANCE AS DEFINED BY THE ISA AND NATIONAL STANDARDS

Issue: How do the ISA and current national standards define moderate assurance and are these definitions useful?

a) Moderate Assurance as Defined by the IAASB

- (264) The ISA address the issue of moderate assurance in relation to reviews of financial statements in ISA 910. In particular, ISA 910 states, “A review engagement provides a moderate level of assurance that the information subject to review is free of material misstatement, this is expressed in the form of negative assurance.”²⁰⁷ This represents, of course, the application of the assurance received perspective rather than that obtained by the accountant. ISA 910.03 states that such a review does not provide all the evidence that would be required in an audit. In addition, ISA 910.07 sets forth that “the auditor [sic] should obtain sufficient appropriate evidence primarily through inquiry and analytical procedures to be able to draw conclusions” for the purpose of expressing negative assurance.²⁰⁸ Consequently, it appears that ISA 910 defines moderate assurance as being less than reasonable assurance because not the same quantity and quality of evidence is gathered to form the conclusion (negative assurance).
- (265) ISA 100.30 also addresses moderate assurance, in which the expression moderate assurance is stated as referring to the acquisition of sufficient appropriate evidence to be satisfied that the subject matter is plausible in the circumstances. Furthermore, ISA 100.30 links this level of assurance with the design of the engagement to reduce the risk of an inappropriate conclusion to a moderate level²⁰⁹. It is noteworthy that, unlike the definition of high assurance in ISA 100.29, which covers only the risk of incorrect acceptance²¹⁰, ISA 100.30 covers both that risk and the risk of incorrect rejection. Moreover, unlike ISA 910, the assurance perspective of the accountant (the assurance obtained) rather than that of the assurance received by the user is taken. In addition, the concept of “plausibility in the circumstances” has been introduced, but without directly linking it to the criteria applied.
- (266) The criteria are mentioned in the last sentence of ISA 100.30, which states that the professional accountant’s report is designed to convey a moderate level of assurance regarding the conformity of the subject matter with identified suitable criteria.²¹¹ In other words, except for the reduction of risk to moderate rather

²⁰⁷ IFAC 2001, ISA 910.09

²⁰⁸ IFAC 2001, ISA 910.03 and .07

²⁰⁹ IFAC 2001, ISA 100.30

²¹⁰ IFAC 2001, ISA 100.29

²¹¹ IFAC 2001, ISA 100.30

than low (which suggests an absolute concept of moderate assurance) and the use of the term “plausible in the circumstances” (which suggests a relative concept of moderate assurance), the definition of moderate assurance in ISA 100 does not appear to distinguish moderate from high assurance, for the definition does not provide any information as to the degree of assurance obtained in a moderate assurance engagement other than by means of the undefined term “plausibility”.

- (267) It is also noteworthy that ISA 910 does address professional scepticism for reviews of financial statements²¹², even if in a more cursory fashion compared to ISA 200²¹³. Even though ISA 100 currently addresses professional scepticism for high assurance engagements, because ISA 100 does not provide a standard for moderate assurance beyond the objectives and elements of assurance engagements, ISA 100 does not address professional scepticism for moderate assurance engagements²¹⁴. Neither standard addresses the auditor’s presumption, whether good faith or otherwise, for moderate assurance engagements.
- (268) **Hence, the approach taken for reviews of financial statements in ISA 910 does not appear to be consistent with moderate assurance engagements as described in ISA 100 because the first approach does not address the reduction of risk, but the second does; furthermore, the assurance perspectives appear to be different and ISA 100 applies the “plausibility” concept, whereas ISA 910 does not. Professional scepticism was addressed in ISA 910 for reviews of financial statements, but the lack of a standard for moderate assurance engagements in ISA 100 means that no such reference was made for moderate assurance engagements. Neither standard addresses the presumption, whether good faith or otherwise, of the auditor for moderate assurance engagements.**

b) Moderate Assurance as Defined in the US

- (269) In the United States, the AICPA appears to take a different approach to review engagements in relation to financial statements. In AU § 722, which provides guidance to accountants on the procedures to be applied to interim financial information, it is noted that such a review entails procedures that are substantially less in scope than an audit performed in accordance with GAAS. The objective of such a review is to provide the accountant, based on inquiries and analytical procedures, with a basis for reporting whether material modifications should be made for such information to conform to GAAP.²¹⁵ No mention is made of the level of assurance (or the reduction in engagement risk) obtained by such an engagement.

²¹² IFAC 2001, ISA 910.06

²¹³ IFAC 2001, ISA 200.06

²¹⁴ IFAC 2001, ISA 100

²¹⁵ AICPA 2001, AU §722.01 & .09

- (270) In contrast, the AICPA's Standards for Accounting and Review Services on financial statements define a review of financial statements as the performance of inquiry and analytical procedures that provide the accountant with a reasonable basis for expressing limited assurance that there are no material modifications that should be made to the statement for them to be in conformity with GAAP or another comprehensive basis of accounting.²¹⁶ Again, this standard provides a direct link to the performance of certain kinds of procedures (inquiry and analytical procedures), but speaks of the provision of a "reasonable basis for expressing limited assurance". In other words, the standard takes the perspective of the assurance expressed, rather than that acquired by the accountant (as applied in AU §722) or that received by the user. The term "limited assurance" is not defined further, nor is the term "moderate assurance" addressed.
- (271) The currently applicable AICPA standard Attest Engagements states:
- "In an attest engagement designed to provide a moderate level of assurance (referred to as a *review*), the objective is to accumulate sufficient evidence to restrict attestation risk to a moderate level. To accomplish this, the types of procedures performed generally are limited to inquiries and analytical procedures (rather than also including search and verification procedures)".²¹⁷
- This definition is not substantially different from the one previously given in the standard replaced.²¹⁸
- (272) It should also be pointed out neither AU §722 for reviews of interim financial statements, AR §100 for reviews of financial statements, nor AT § 101 address the concept of professional scepticism for limited or moderate assurance engagements.²¹⁹
- (273) **Overall, the US approach to both reviews of financial statements and other moderate assurance engagements is heavily procedures-oriented (inquiry and analytical procedures), but the terminology used (moderate vs. limited assurance or no description of the assurance attained at all) and the assurance perspective (user or that expressed in the report) is not consistently applied. The concept of professional scepticism and the auditor's presumption (whether good faith or otherwise) is not addressed by these standards.**

²¹⁶ AICPA2001, *Codification of Statements on Standards for Accounting and Review Services Nos. 1 to 8* (AICPA: New York, NY, as of January 1, 2001), AR §100.04,

²¹⁷ AICPA 2001, AT §101.55

²¹⁸ AICPA 2001, AT § 100.55-.56

²¹⁹ See AICPA 2001, AU §722, AT §100 and AICPA 2001, *Codification of Statements on Standards for Accounting and Review Services Nos. 1 to 8* AR §100

c) Moderate Assurance as Defined in Canada

- (274) In the CICA Handbook, the general review standard in Handbook Section 8100 distinguishes reviews from audits by noting that the scope of a review is less than that of an audit (enquiry, analytical procedures and discussion) and therefore the level of assurance is lower. In addition, the standard states that a review has the limited objective of assessing whether the information being reported on is plausible within the framework of appropriate criteria. Furthermore, the word “plausible” is used in the sense of appearing to be worthy of belief based on the information obtained in connection with the review.²²⁰
- (275) The following paragraph of the standard speaks of “plausible in the circumstances” rather than “plausible within the framework of appropriate criteria.”²²¹ It therefore appears that the Canadian standard on reviews does not take a consistent approach with respect to the assurance perspective (assurance provided vs. assurance obtained). In addition, the use of both “plausible in the circumstances” and “plausible within the framework of appropriate criteria” is not reconciled. Nevertheless, plausibility is defined in terms of “worthy of belief”, which provides an indication of the level of assurance, and the engagement is defined by the types of procedures applied.
- (276) Unlike the treatment of reviews in the general review standard (CICA Handbook Section 8100), the CICA Standards for Assurance Engagements (CICA Handbook Section 5025) explicitly address the concept of moderate assurance. CICA Handbook Section 5025 states:
- “In a review engagement, the practitioner provides a moderate level of assurance by designing procedures so that, in the practitioner’s professional judgment, the risk of an inappropriate conclusion is reduced to a moderate level through procedures which are normally limited to enquiry, analysis and discussion. Such risk is reduced to a moderate level when the evidence obtained enables the practitioner to conclude the subject matter is plausible in the circumstances.”²²²
- (277) Like the general review standards, the assurance standards speak of the engagement allowing the assessment as to whether the subject matter is plausible in the circumstances, but does not define plausibility as being worthy of belief nor addresses plausibility in relation to being within the framework of appropriate criteria. It should also be noted that the assurance standards are not internally consistent in assurance perspective (“the practitioner provides a moderate level of assurance” vs. “the risk of an inappropriate conclusion is reduced to a moderate level”).

²²⁰ CICA 2001, *Handbook Vol. I*, Section 8100.05

²²¹ CICA 2001, *Handbook Vol. I*, Section 8100.06

²²² CICA 2001, *Handbook Vol. I*, Section 5025.12

- (278) Unlike the general standards, the assurance standards explicitly refer to the level of assurance being moderate. However, as was noted in the previous Section, there appears to be a conflict with the definition of high assurance being the highest reasonable level of assurance that can be provided, for if moderate assurance is absolute, but the highest reasonable level depends on the circumstances, there may be instances where the highest reasonable level is moderate.
- (279) Neither of the CICA standards, CICA Handbook Section 8100 and 5025, relating to general review standards and moderate assurance engagements, respectively, address professional scepticism or the presumption of management's good faith.²²³
- (280) **In conclusion, the Canadian standards appear to be consistent in their treatment of review engagements in terms of being defined by the kinds of procedures applied (enquiry, analysis and discussion) and that this leads to a conclusion, which involves less assurance than in an audit, that the subject matter is plausible in the circumstances. On the other hand, the use of the term plausible does not appear to be consistently applied (i.e., "within the framework of appropriate criteria" vs. "in the circumstances") and was defined within the context of the general review standards ("worthy of belief"), but not in the assurance standards. In addition the relationship between engagement risk and moderate assurance (the reduction of both the risk of incorrect acceptance and rejection to a moderate level) was defined in the assurance standards but not in the general review standards and a particular assurance perspective (assurance obtained vs. that provided) was not consistently applied. It should also be noted that the definition of high assurance as a relative concept was not reconciled to the definition of moderate assurance as an absolute concept. Furthermore, the Canadian standards do not address professional scepticism or the presumption of management's good faith.**

d) Moderate Assurance as Defined in the UK

- (281) The UK addresses assurance engagements other than audits on financial information in the APB Bulletin 1999/4 "Review of interim financial information". This pronouncement states:
- "A review involves less work than an audit, because amongst other things, a review does not include:
- (a) tests of accounting records through inspection, observation, or confirmation;
 - (b) obtaining corroborative evidence in response to enquiries; or

²²³ See CICA 2001, *Handbook Vol. I*, Sections 8100 and 5025

- (c) the application of certain other procedures normally performed during an audit, such as tests of controls and verification of assets and liabilities.

An audit provides a high level of assurance. It is designed to obtain sufficient appropriate audit evidence to provide reasonable assurance that the financial statements are free of material misstatement. A review provides a moderate level of assurance, i.e. a lower level of assurance than an audit.”²²⁴

- (282) The UK approach to moderate assurance also appears to be procedures-oriented, much like the approaches in the U.S. and Canada. The UK approach does distinguish between moderate and high as absolute levels of assurance. It should also be noted that the UK takes an assurance provided perspective of assurance and does not explicitly link this perspective in any way to engagement risk. In addition, the UK standard does not address either professional scepticism or the auditor’s presumption with respect to management.
- (283) Of particular interest is the research study entitled “Findings of the Field Trials of the Independent Professional Review” published by the Auditing Practices Board. In these field trials, accounting, audit and review engagements were field tested on small clients. In particular, 20 field tests were carried out in which all twenty financial statements were subject to first a review and then an audit. Twelve of these engagements involved the preparation of the financial statements prior to the review and audit, whereas 8 were pure audits and reviews.²²⁵
- (284) Of the twenty financial statement field trials, 8 resulted in no errors being detected and 12 resulted in the detection of errors. As the research study pointed out, it is striking that for those financial statements that were also prepared by the accounting firm, almost all of the adjustments made arose during the preparation of the financial statements rather than during the review or the audit. This suggests that additional research into the effectiveness of audits in connection with accounting services where independence considerations do not apply may need to be performed.
- (285) There were four engagements in which only the audit detected misstatements, even though errors were detected in twelve engagements in total.²²⁶ While these figures are not statistically significant, they do suggest that an audit appears to be notably more effective than reviews in detecting error.

²²⁴ APB 2002, *Auditing and Reporting*, Bulletin 1999/4.09-.10

²²⁵ Auditing Practices Board (APB), *Findings of the Field Trials of the Independent Professional Review* (CCAB: London, 2001), pp. vii, 19 and 45

²²⁶ ABP, *Auditing and Reporting 2001*, pp. 19-20

(286) These results also seem to be in accordance with the views expressed by practitioners in the research study. 85 % of practitioners consider a review to be less effective than an audit for the detection of material misstatements. Furthermore, 91 % of practitioners believed that reviews are less effective than an audit in detecting fraud. The review report had included the following statement: "It is not within the scope of an IPR to consider whether fraud or illegal acts have occurred."²²⁷ In other words, the results of the study suggest not only that a review obtains less assurance than an audit, but also that assertions with respect to fraud and illegal acts are scoped out of the objective of the engagement. By removing assertions for which little or much less assurance can be obtained from the scope of an engagement, higher level of assurance can be expressed in the conclusion reported for the remaining assertions.

(287) **In conclusion, the UK approach is very procedures oriented and regards moderate and high assurance as representing absolute levels; in addition, the assurance provided perspective is taken but not explicitly linked to engagement risk. The UK standard does not address professional scepticism or the auditor's presumption with respect to management for a review of interim financial statements. Based on an Auditing Standards Board research study, accounting services in conjunction with audits appear to obtain the most assurance, audits appear to be about one-third more effective than reviews in detecting material error, and practitioners view reviews as being much less effective than audits in detecting fraud or illegal acts. Furthermore, a case was made on this basis that responsibility for the detection of fraud and illegal acts should not be within the scope of a review.**

e) Moderate Assurance Internationally Based on the IAASB Study 1

(288) Section 2 of the previous Part addressed the response of the accounting firms to the question in relation to the percentage confidence in relation to high and moderate assurance. It was noted that the percentage confidence associated with moderate assurance was 60 % with a standard deviation of 14 percentage points. On this basis, it is clear that practitioners believe that moderate assurance is an absolute rather than relative concept. Furthermore, the upper bound of moderate assurance of 74 % based upon its mean plus standard deviation is convincingly less than the lower bound for high assurance of 80 % based upon its mean less standard deviation. It is therefore apparent that practitioners also tend to see a clear delineation between high and moderate assurance. Of particular interest is the lower bound for moderate assurance of 46 % based upon its mean less standard deviation, which is slightly less than 50 %, or the balance of the probabilities. Nevertheless, this standard deviation was created by some severe outliers: 40 of the 52 respondents, or 77 % of the

²²⁷ ABP 2001, *Auditing and Reporting*, p. 20

respondents, viewed moderate assurance as lying between 50 % and 80 %, whereas some outlying points over 90 % and under 25 % caused the unusually large standard deviation (in fact, only 6 of the 52 respondents placed moderate assurance at below 50 %).²²⁸ This suggests that the lower bound for the vast majority of practitioners lies at about 50 %.

- (289) **In conclusion, internationally practitioners appear to apply an absolute concept of moderate assurance that is clearly below high and that generally does not fall below 50% confidence.**
- (290) **As an overall conclusion, the auditing standard setters in major common law jurisdictions appear to have taken a procedural approach to delineate moderate from high assurance. The IAASB concurred for reviews of financial statements, but could not come to an agreement on whether this is appropriate for other moderate assurance engagements. With respect to other matters, (such as engagement risk, assurance perspective, the meaning of the terminology applied, and absolute vs. relative levels) there does not appear to be a consensus among these standard setters – indeed, it appears that the standard setters themselves appeared to have difficulty in reaching internally consistent positions on these matters. Furthermore, it is interesting to note that none of the standard setters addresses professional scepticism or the presumption of the auditor with respect to management, even though these may be as relevant to reviews and moderate assurance engagements as to audits and high assurance engagements. It should also be noted that practitioners tend to view moderate assurance as representing an absolute concept that is clearly below high and tends to not fall below 50 %, the balance of the probabilities.**

3. MODERATE ASSURANCE AND OTHER ASSOCIATED TERMS

Issue: How do the terms limited assurance, plausibility, probable, more likely than not and the preponderance of the evidence relate to the concept of moderate assurance?

- (291) Section 1 of this Part discussed the relationship between the terms moderate and high as commonly used. The discussion in the previous Section introduced a number of new terms that some standard setters in one way or another associate with moderate assurance (limited assurance, plausibility). Furthermore, the previous Part had addressed the concepts used by the legal profession in dealing with different levels of assurance (probable, more likely than not, preponderance of the evidence) in relation to high assurance. In this

²²⁸ IAASB of IFAC 2002, *Study 1*, p. 1014

Section, the Paper will describe how the professional, common or legal use of these terms relates to the concept of moderate assurance.

- (292) In Section 5 of the previous Part, reasonable and high assurance were compared to the terms probable, more likely than not, and the preponderance of the evidence. Based on the conclusions in that Section about the relative position of high assurance, which, from a Bayesian perspective, appears to be greater than probable, more likely than not, and the preponderance of the evidence, but as being essentially equivalent to the legal concept of clear and convincing evidence (reasonable certainty or high probability), it appears that probable, more likely than not, and the preponderance of the evidence fall within the range of the term moderate assurance in accordance with the findings of the IAASB Study 1 on the views of practitioners. The majority of these practitioners appear to view moderate assurance as being less than high but tending to be more than just the balance of the probabilities.
- (293) This, of course, begs the questions as to where the lower bound for moderate assurance actually ought to be given the views of practitioners and the other conclusions drawn in this and previous Sections. Some academics, notably Smieliauskas have come to the conclusion that assurance below 50% certainty is still a useful concept for decision-making, since the users may obtain additional assurance from other sources to “top-up” the assurance provided by the practitioner.²²⁹
- (294) Nevertheless, the application of the assurance concept is not only subject to theoretical and practical considerations, but also to political considerations. The tendency of practitioners to set the lower bound at about 50 % certainty suggests that practitioners feel uncomfortable selling a service with less than an even chance of coming to an appropriate conclusion. This is probably related to reputation risk – that is, the professions appear to view services that yield such low levels of credibility as not improving the reputation of the profession. Given the consequences of reputation risk (witness the consequences for Andersen under the Enron crisis), this position is understandable.
- (295) In the previous Section, it was noted that the U.S. standard for reviews of financial statements speaks of “limited assurance”, whereas the U.S. attestation standard speaks of “moderate assurance”, but no attempt was made in U.S. literature to reconcile the two concepts. However, it is of interest that, in the U.S. view, limited assurance obtained in a review of financial statements is less

²²⁹ W.J. Smieliauskas, pp. 215-216 and p. 222. It should also be noted that Smieliauskas appears to suggest that the usefulness of assurance levels below 50% may depend upon the concept of „separability“: he appears to intimate that nonseparability may be a prerequisite for the use of low levels of assurance. According to Smieliauskas, „separability“ describes the situation in which the uncertainties with respect to the engagement are separable from the uncertainties associated with the subject matter of the engagement. See Smieliauskas, p. 136. The issue of separability is important and should be a subject of more research, but generally goes beyond the scope of this paper. It is addressed briefly in Section 4 of Part B of this Chapter and where it is of direct significance to other issues.

than that obtained in an audit. Given the conclusion in the previous Part that reasonable assurance in relation to audits of financial statements is a relative concept (including in the U.S.), then “limited assurance” in relation to reviews of financial statements must also be a relative concept that depends upon the situation, or the two would overlap (i.e., violate the exclusiveness criterion set forth in Section 7 of Part B). Since the U.S. has subscribed to the work effort approach for assurance engagements in its standards, this implies that limited assurance would represent less assurance than that which could have reasonably been obtained (reasonable assurance) if more work had been done. Hence, in those cases in which the assurance that can reasonably be obtained (reasonable assurance) is less than high and therefore that level of assurance would be moderate or less, limited assurance would represent less than moderate assurance, which practitioners would view as representing less than 50 % certainty.

- (296) This line of argument may help explain the U.S. position in its attest standard that the practitioner must be in a position to obtain high assurance to accept an engagement requiring only moderate assurance: if high assurance were to be defined as equivalent to reasonable assurance, then not being in a position to obtain high implies only being able to obtain less than 50 %, which may not be acceptable from a professional point of view. This argument, of course, does not hold if the concept of high assurance is not equivalent to reasonable assurance, which was the conclusion drawn in the previous Part. Nevertheless, it is apparent that the concept of “limited assurance” is associated with the intentional limitation of the assurance obtained by means of a reduction in work effort that would have otherwise been necessary to obtain more assurance.
- (297) As shown in the previous Section, the term “plausible” is also used in connection with the concept of moderate assurance – in particular as used by IFAC in ISA 100 and the CICA in its assurance standards. The dictionary definition of “plausible” is: “1. seeming to be likely or probable, but open to doubt, 2. Apparently trustworthy or believable.”²³⁰ The second definition is close to the CICA description of the word signifying “being worthy of belief”. The first definition (likely or probable) suggests that plausibility is greater than 50 % certainty, which, based on the previous discussion, would place it on par with the practitioner’s tendency to view moderate assurance as being greater than 50 % certainty. On this basis, the term “plausible” does appear to adequately describe moderate assurance, but its absolute nature would preclude its application to the concept “limited assurance”.
- (298) **In conclusion, based on the majority view of practitioners and its relationship to high assurance, the term moderate assurance appears to reflect an absolute concept of assurance less than high assurance, but from a Bayesian perspective, greater than the balance of the probabilities.**

²³⁰ Funk & Wagnalls Canadian College Dictionary, 1989, p. 1035

Consequently, based on this assertion and the definitions and usage of the terms probable, more likely than not, and the preponderance of the evidence, these absolute terms represent concepts that fall within such a concept of moderate assurance. The same applies to the use of the term “plausible”.

- (299) The term “limited assurance”, on the other hand, appears to be associated with the intentional limitation of the assurance obtained by means of a reduction in work effort that would have otherwise been necessary to obtain more (i.e., “reasonable”) assurance.

E. THE IMPLICATIONS FOR CONCEPTS ASSOCIATED WITH LEVELS OF ASSURANCE

1. VARIATIONS IN REASONABLENESS DUE TO THE SUBJECT MATTER, CRITERIA, EVIDENCE, ENGAGEMENT PROCESS OR CRITERIA

Issue: What are the implications of the conclusions reached in this Part for the concept of reasonable assurance?

- (300) The discussions in this Part led to the conclusion that, from a Bayesian perspective, high assurance is best thought of as an absolute concept in relation to certainty that is equivalent to “reasonable certainty” or “high probability” or “clear and convincing evidence”. Reasonable assurance, on the other hand, is best thought of as a relative concept describing the reasonable level of assurance that can be obtained in the circumstances. The question then arises: what determines the circumstances of the engagement that allows an assessment of reasonability?
- (301) In Section 2 of Part C it was shown that the courts would look to the circumstances of a case in making their determination as to whether or not the assurance that was obtained by a practitioner was reasonable. Section 3 of Part C addressed those aspects of the circumstances affecting such judgement and that have generally been accepted by auditing standard setters as determining the nature of the engagement: the subject matter being evaluated, the criteria being applied in that evaluation, the process by which the evaluation is being performed and the evidence available for evaluation.
- (302) If these elements (subject matter, criteria, engagement process and available evidence) represent the circumstances of the engagement that determine what would be reasonable, then reasonability would vary with variations in these elements. In other words, what may be reasonable for one subject matter may not be so for another. Likewise, what may be considered reasonable for a certain set of criteria may not be so for another set. The same applies to the engagement process and the available evidence.
- (303) The consequences arising from this are clear: what the courts might consider to be a reasonable level of assurance for, say, audits of accrual financial statements may or may not be reasonable for other assurance engagements, such as for environmental or prospective information, or cash-based financial statements (variations in subject matter or criteria).
- (304) Such variations in subject matter may depend upon the nature of the engagement. For example, it was noted in Section 2 of the previous Part that

practitioners may attempt to scope out assertions (such as for fraud or illegal acts) for engagements designed to obtain assurance that is limited (e.g., a review of financial statements) in relation to the assurance that could otherwise reasonably be obtained (e.g., an audit of financial statements). By scoping out assertions, it may be possible for practitioners to express a conclusion with a higher level of assurance than might otherwise be the case. In addition, if one accepts the conclusion in this Part that practitioners are uncomfortable with engagements in which the assurance obtained is less than the balance of the probabilities, then scoping out may make limited assurance engagements possible in cases where the reasonable level of assurance is less than high (i.e., moderate).

- (305) The risk associated with the removal of assertions from the scope of an engagement is, the more assertions that are removed from the scope, the less likely the remaining scope of the engagement is still meaningful (the concept of meaningfulness will be discussed in the next Chapter) to users. In these circumstances it would not be unreasonable to expect the common law courts to take a view of such limitations on the scope of the engagement similar to their views on disclaimers on warranties (such as exclusion clauses and limiting terms) and other unconscionable contracts²³¹. This means that the common courts might limit the ability of practitioners to remove more assertions than may be considered reasonable from the scope of an engagement.
- (306) The situation may be, however, somewhat different in civil law jurisdictions. For example, in Germany a nonstatutory assurance engagement would be classified as a “Werkvertrag” [essentially a contract for a package of services leading to a particular result] pursuant to § 631 Bürgerliches Gesetzbuch [Article 631 German Civil Code]. In this case, it does not appear likely that the courts would disregard the terms of the contract, and therefore as long as the terms of the contract and the report issued clearly delineated the work performed without misrepresentation and this work was performed without negligence or intentional non-performance, the practitioner would not be subject to liability.
- (307) Furthermore, courts are likely to regard a higher level of assurance as being reasonable for circumstances in which high quality evidence is readily available compare to those circumstances in which it is not. It is also conceivable that if superior processes are readily available, the courts may view the level of assurance obtained by means of an inferior process leading to less assurance not to be reasonable.
- (308) **In conclusion, the level of assurance that would be construed as being reasonable depends on the circumstances, which in turn will depend upon the subject matter, criteria, engagement process and available**

²³¹ See J. D. Calamari and J.M. Perillo, pp. 365-376 and M. P. Furmston, pp. 160-184

evidence involved in the engagement. This implies that what is reasonable assurance for one kind of engagement may not be so for another.

2. NATIONAL VARIATIONS IN REASONABLENESS

Issue: How does the ultimate role of the courts in deciding what is reasonable in the circumstances affect the concept of reasonable assurance at an international level and the application of the ISA?

- (309) Practitioners ignore court decisions on the basis for their liability in professional practice at their peril, for, as was shown in Section 2 of Part C, ultimately the courts decide whether or not the work of a practitioner meets required standards and, if the latest court decisions on this matter are considered, decide whether or not the standards applied are themselves reasonable. Noteworthy in this respect is that, while Sections 2 and 3 of Part C came to the conclusion that the concept of reasonable assurance applied in the three common law jurisdictions addressed is similar, this does not mean that in individual cases these courts come to the same conclusions on what is reasonable in particular circumstances. In other words, the test of reasonability is essentially a local one governed by local law.
- (310) Since international standards represent the best thinking of the international profession on what standards its members should be judged, it is clear that national courts will apply them as long as they think them to be appropriate. Nevertheless, there may be circumstances where the courts do not consider them to be appropriate. The common practices within the international firms may help harmonise practice of firms of all sizes across various jurisdictions in the long run, and, to the extent that courts may look to general practice as a basis for helping to determine practitioner liability, such practice may help form the basis for courts' determinations of the appropriate application of such standards. Nevertheless, courts in different jurisdictions will interpret international standards differently based on their local view of reasonableness and the linguistic problems associated with translations. Consequently, it should be recognised that there are nonstatutory and nonregulatory legal limitations on the degree of harmonisation that international auditing standards can accomplish due to fundamental differences in the legal systems of different jurisdictions.
- (311) This has important implications for the adoption of the ISA as national standards or their implementation in national standards. Even if the ISA are adopted as national standards (with or without legal sanction), adoption does not mean that they can be applied uniformly among different jurisdictions due to judicial differences in these jurisdictions caused by differing systems of legal interpretation and translations difficulties. In other words, the adoption of the ISA may reduce but does not eliminate the need for supplementary guidance in

relation to the ISA, even if there are no statutory or regulatory barriers to common application. For this reason, a number of jurisdictions choose to implement the ISA in their national standards rather than adopting the ISA outright. It is significant that generally those jurisdictions with a long history of well-developed legal systems are those that have been most likely to implement the ISA or just use the ISA in developing national standards rather than adopt the ISA.²³²

- (312) **In conclusion, since courts in local jurisdictions ultimately determine auditor liability based on that court's interpretation of reasonability, reasonable assurance will vary among jurisdictions. The courts are likely to regard a higher level of assurance as being reasonable for circumstances in which high quality evidence is readily available compared to those circumstances in which it is not. It is also conceivable that if superior processes are readily available, the courts may view the level of assurance obtained by means of an inferior process leading to less assurance as not reasonable in the circumstances.**
- (313) **Furthermore, while international standards will substantially harmonise audit practice in conjunction with international firm practice, local courts are able to and do reach decisions at variance with these standards and practices. Consequently, until national legal systems have been harmonised, there will be non-statutory and non-regulatory legal limitations on the degree of harmonisation of auditing standards and practices attainable. For this reason, countries with a long history of well-developed legal systems have tended to implement the ISA or considered them in their standard setting processes rather than to adopt the ISA.**

3. A QUALITATIVELY DESCRIBED ORDINAL SCALE FOR ASSURANCE

Issue: How can the levels of assurance be described and depicted?

- (314) Based on the conclusions reached in this Part, it is apparent that there are different levels of assurance that can be described in different ways. Nevertheless, it may be useful to attempt to summarize in a diagram the relationship between these different levels and their descriptions so as to make the relationships more concrete:

²³² International Federation of Accountants, *Summary of Responses to the 1998 and 1995 Surveys On the Usage and Implementation Status of ISAs – Respondents' Self Assessment of Usage of ISAs*, Appendix 3 (Unpublished: partially updated in 2001)

Diagram 2

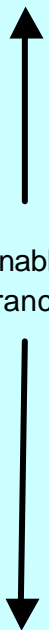
level of certainty (lower bound)	legal standard of proof	Level of assurance	
		(absolute scale)	(relative scale)
absolute certainty (100 %)	no doubt	absolute	"unreasonable" assurance in all circumstances
virtual certainty	remote possibility of doubt	extremely high	
	beyond any reasonable doubt	very high	
highly probable	clear and convincing evidence (reasonable doubt)	high	
probable	preponderance of the evidence (considerable doubt)	moderate	
more likely than not (> 50%)			
balance of the probabilities (50%)	(substantial doubt)	low	
more unlikely than not (<50%)		low	
improbable		low	
complete uncertainty (0%)		non-existent	

Diagram 2

- (315) The diagram takes a Bayesian perspective of assurance. A Baconian view of assurance would simply remove the far left column and thereby not associate the ordinal strength of the evidence supporting the decision taken with specific ranges or descriptions of probability.
- (316) In accordance with the findings of this Part, from a Bayesian perspective reasonable assurance represents a relative concept with a lower bound at a level of certainty corresponding to more likely than not (or as the legal profession would say, the preponderance of the evidence). The placement of reasonable assurance on the ordinal scale encompassing beyond any reasonable doubt, clear and convincing evidence and the preponderance of the evidence would depend upon the circumstances of the engagement. In essence, reasonable assurance is the level of assurance that can reasonably be obtained within the confines of what can reasonably be expected from a certain kind of engagement. From a Bayesian perspective, high and moderate assurance, represent absolute concepts, with high meaning at least highly probable (clear and convincing evidence) and moderate ranging from more likely than not to probable (the preponderance of the evidence).
- (317) The range depicted by reasonable assurance does not represent the range of assurance that is acceptably termed “reasonable” for a specific engagement for particular circumstances. Rather, it represents the acceptable range of reasonable assurance across all kinds of engagements for all possible circumstances. For a particular engagement in certain circumstances, what would be construed as “reasonable assurance” would certainly represent a range, the lower bound of which would represent assurance that is not sufficiently reasonable and the upper bound of which would represent assurance which is unreasonably high, but this range may be quite narrow. For example, it is conceivable that for certain kinds of engagements with a very narrow scope, precise subject matter, definitive criteria, and a comprehensive engagement process an extremely high level of assurance would be regarded as reasonable (beyond any reasonable doubt). For other kinds of engagements, the assurance that would be regarded as reasonable may not be more than moderate (i.e., the preponderance of the evidence).
- (318) On the other hand, for specific engagements in certain circumstances that cover a variety of both explicit and implicit assertions within a single conclusion, the range of reasonable assurance may be quite broad. For example, the level of assurance obtained on the audit of cash balances at year-end in an audit of financial statements may be significantly greater than that obtained for assertions encompassing revenue recognition issues requiring considerable professional judgement or for implicit assertions with respect to the absence of material misstatements due to management fraud.
- (319) The concept of “limited assurance”, which is not depicted in the diagram also represents a relative concept – but one that is relative to reasonable assurance, since this Part concludes that limited assurance represents the intentional

acquisition of a lower level of assurance than that which could reasonably be obtained (reasonable assurance). Furthermore, it is conceivable that the range of assertions covered by the objectives of a limited assurance engagement might be more limited than for an engagement designed to obtain reasonable assurance. In short, limited assurance simply ranks lower than reasonable assurance due to the decision to obtain less evidence. Nevertheless, it should be noted that it is difficult to compare limited assurance for engagements with different scopes (e.g., when particular assertions are scoped out of the engagement objectives for the purposes of the limited assurance engagement).

- (320) Now that the concept of assurance has been investigated, the Paper turns to the core problem associated with that concept: what determines the level of assurance obtained. This problem can only be addressed, however, by examining those elements constituting the circumstances of an engagement: subject matter, criteria, evidence and engagement process.

**V. ISSUES IN RELATION TO SUBJECT
MATTER, CRITERIA, EVIDENCE AND
ENGAGEMENT PROCESS**

A. CHARACTERISTICS OF THE ELEMENTS OF AN ASSURANCE ENGAGEMENT

Issue: What are the characteristics of the elements of an assurance engagement with which one can evaluate those elements?

1. SUITABILITY

Issue: How can the suitability of the elements of an assurance engagement be determined?

- (321) A prerequisite for an assurance engagement is that its elements – that is, the relevant subject matter, criteria, evidence and engagement process – are suitable for that engagement. Consequently, the practitioner must be able to reach a decision as to whether or not these elements are suitable for the purposes of that engagement. According to the treatment of decision-making processes in Part B of Chapter I, decision theory would provide the basis for determining that decision process. Such a decision process would require evidence about the characteristics of these elements for the determination of their suitability. Since, according to the analysis in Part B of Chapter I, evidence is information, sufficient and appropriate information about whether the characteristics of the elements are suitable is required. The key point here is the need for *information* in adequate quantity and quality about the characteristics of these elements.
- (322) Part B of Chapter I also notes that the determination of the costs and value of information under information theory establishes the link to decision theory. Ultimately, then, it is the value and cost of the information about the characteristics of the elements that will allow the practitioner to determine whether these are suitable to perform the engagement. This suggests that information theory can serve as a basis for establishing the criteria for the determination of whether the information obtained is of adequate quality – that is whether or not it displays the required qualitative attributes.
- (323) **In conclusion, it appears that decision theory suggests that the concepts of information theory be examined as a basis for the determination of the suitability of information.**

2. INFORMATION THEORY AS A BASIS FOR SUITABILITY

Issue: What are the concepts of information theory that may be useful to the determination of the suitability of information?

(324) As pointed out in Part B of Chapter I, information theory commonly acknowledges ten attributes that allow an assessment of the value of information: accessibility, comprehensiveness, accuracy, appropriateness, timeliness, clarity, flexibility, verifiability, freedom from bias and quantifiability. Common definitions of each of these terms under information theory are:

accessibility – the ease and speed with which information can be obtained

comprehensiveness – the completeness of the information

accuracy – the degree of freedom from error of the information

appropriateness – the relevance of the information to the users' needs

timeliness – the elapsed time from the occurrence leading to the creation of data until its conversion and communication as information to the user

clarity – the degree to which information is free from ambiguity

flexibility – the usability of the information for more than one user

verifiability – the degree of consensus arrived at by different individuals examining the same information

freedom from bias – the absence of intent to alter or modify information to influence recipients toward reaching one particular conclusion

quantifiability – the precision with which information can be formally recorded and communicated, which is usually defined in terms of its logical quantifiability (i.e., not a numerical quantifiability)²³³

Furthermore, valuable information is of use to a user only if its marginal benefit exceeds its marginal cost.²³⁴

(325) An organised approach to defining the attributes of information quality was proposed in 1993. In particular, these attributes were divided into the three categories time, content and form. The time dimension comprises:

timeliness – availability when needed (if information is provided too early or too late, it may not be useful)

currency – the information should be up-to-date (reflect current circumstances) and indicate those areas or circumstances liable to change by the time the information is used

frequency – information should be available as often as needed

time period – information should cover the correct time period²³⁵

²³³ Burch et al., pp. 17-18

²³⁴ Burch et al., pp. 18-19

²³⁵ P. Bocij et al., pp. 11-12

- (326) The content dimension describes the scope and content of information:
- accuracy – information that contains errors has only limited value
 - relevance – information should meet the needs of the recipient
 - completeness – all of the information relevant to meet the information needs of the recipient should be provided
 - conciseness – only information relevant to the information needs of the recipient should be provided and should be provided in the most compact form possible
 - scope – the needs of the information recipient will determine which areas the information should cover²³⁶
- (327) The form dimension describes how the information is presented to the recipient:
- clarity – the information should be presented in a form that is appropriate to the intended recipient (the recipient should be able to locate the specific information needed within a reasonable time and be able to understand the information easily)
 - detail – the information should contain the level of detail required by the recipient (summary vs. more detail)
 - order – information should be in the correct order
 - presentation – the information should be presented in a form that is appropriate to the intended recipient
 - media – information should be presented using the correct media.²³⁷
- (328) Information systems theorists have also developed additional characteristics relating to the quality of information. These include:
- confidence in the source of the information – greater acceptance and trust of information received from sources that have been accurate and reliable in the past
 - reliability – consistent quality of information
 - appropriateness – restriction to appropriate recipients
 - feedback – confirmation that the information has been received and acted upon by the recipient
 - correct channels – information should be capable of being transmitted via the correct channels so that it reaches the recipient without alteration²³⁸

²³⁶ P. Bocij et al., p. 12

²³⁷ P. Bocij et al., pp. 12-13

²³⁸ P. Bocij et al., p. 13

- (329) The concepts suggested above and by information systems theorists do not wholly coincide with those used in information theory. If one ignores the differences in terminology and concentrates on the different concepts using information theory as a basis, O'Brien and the information systems theorists (hereinafter collectively referred to as the "theorists") appear to have added a number of new concepts. For example, the concept of timeliness for the theorists concentrates more upon availability when needed compared to the elapsed time between event occurrence and communication to the user. This Paper will refer to the former concept as "time required" and to the latter concept as "time elapse".
- (330) Furthermore, the theorists also address the concept of "currency" in relation to the information no longer being appropriate due to events subsequent to its being produced. In their definition of currency, the theorists point out that the information itself should contain information about its potential invalidity due to subsequent events – a concept that this Paper will refer to as "expiry disclosure". The concept of frequency, however, is adequately covered by the concept "time required" above. The concept "time period" is in itself incomplete, since information can also be about a point in time. Strictly speaking, if information does not cover the correct point in time or time period, then that information is either not accurate or appropriate (or a combination of both).
- (331) The theorist's definition of completeness is directly applicable to and therefore can be incorporated into the information theory definition of comprehensiveness. Moreover, theorist's definition of conciseness represents two concepts with which to evaluate information content: its discrimination and its compactness or brevity. The concept of the scope of information is probably well covered by the concepts of comprehensiveness or completeness.
- (332) The theorist's approach to the concept of clarity is more related to form than content, but perhaps both form and content are important for clarity from an information theory point of view. The level of detail required usually refers to the degree to which information can be aggregated or summarised. Certainly, information should be provided in an order which improves the ability of the recipient to understand it. In this sense, the presentation of the information is also important.
- (333) The use of the correct media to convey information is closely related to the idea that information needs to be intelligible to the recipient: if incorrect media are used, the information may not be decipherable.
- (334) The confidence placed by recipients in the source of the information is closely related to the concept of assurance itself – that is the degree to which the user can believe that the information is as reliable as it purports to be. The concept of reliability as used by the theorists (consistent quality) is in fact only one aspect of reliability that one might term "stability". Feedback is not a quality of information itself, but rather a quality of an information system. The use of

appropriate information channels so that information is made available to users or arrives without impairment is closely related to the concepts of accessibility or availability and accuracy, for which an appropriate channel is a prerequisite.

- (335) The concepts noted above would be useful for assessing the suitability of information, but it might also be useful to determine how accounting theory deals with these concepts.
- (336) **In conclusion, while the concepts of information theory appear useful for the determination of the suitability of information, it may also be useful to examine the accounting theory treatment of these concepts.**

3. THE QUALITATIVE CHARACTERISTICS OF ACCOUNTING INFORMATION AS A BASIS FOR SUITABILITY

Issue: What are the qualitative characteristics of information identified by accounting theory?

- (337) Part D of Chapter I mentions that accounting theory has developed sophisticated conceptual frameworks with respect to the qualitative characteristics of accounting information based on decision and information theory. These characteristics could be applied to the information conveyed by assurance engagements. In any case, it may be useful to compare the characteristics of information under information theory with those developed for accounting information by accounting standard setters.
- (338) The first attempt by a major standard setter to apply information theory to develop qualitative characteristics of accounting information was in 1980 by the Financial Accounting Standards Board (FASB) in the U.S. with Statement of Financial Accounting Concepts No. 2 (SFAC No. 2).²³⁹ Before a comparison between the attributes of information under information theory and the qualitative characteristics of information is made, the concepts of SFAC No. 2 need to be presented.
- (339) The FASB model considers decision makers and their characteristics, such as their level and nature of understanding or prior knowledge. The emphasis in this case is on the fact that information that is not understood by users because they lack the appropriate level of nature of understanding, either due to a lack of prior knowledge or otherwise, is not useful. In other words, information needs to be of a nature and form so that the characteristics of the user allow the information to be understood.²⁴⁰ Furthermore, FASB addresses the

²³⁹ FASB Original Pronouncements 2001/2002 Edition, Statement of Financial Accounting Concepts No. 2: Qualitative Characteristics of Accounting Information (SFAC No. 2 – CON 2, (John Wiley & Sons, Inc.: New York, 2001), CON 2.33 incl. *figure 1*

²⁴⁰ FASB 2001, CON 2.33-41

understandability of the information as a link between the characteristics of users and the inherent characteristics of the information, such as its intelligibility (more formally, understandability is defined as the quality of information that enables users to perceive its significance).²⁴¹

- (340) The relative benefits versus costs of the information are treated as a pervasive constraint – that is, the benefits of information must exceed its cost to make it useful to users.²⁴² Another pervasive concept is the threshold for recognition, materiality. Materiality is defined as the magnitude of an omission or misstatement of information that, in the light of the surrounding circumstances, makes it probable that the judgment of a reasonable person relying on the information would have been changed or influenced by the omission or misstatement. Materiality is distinguished from relevance by linking it to magnitude – but it is also pointed out that the point at which a magnitude is material rests on both quantitative and qualitative considerations. Furthermore, the precision with which a judgmental item can be estimated is also a factor in materiality judgments, for if greater precision can be attained, a more stringent materiality criterion may be appropriate.²⁴³
- (341) Central to the FASB model of the usefulness of (accounting) information is the concept of decision usefulness, which is defined as being composed of two primary decision-specific qualities that may be subject to trade-offs in practice: relevance and reliability.²⁴⁴ Relevance is defined as the capacity of information to make a difference in a decision by helping users to form predictions about the outcomes of past, present, and future events or to confirm or correct prior expectations. Consequently, relevance is thought of as comprising the following ingredients: predictive value, feedback value and timeliness. Predictive value, in turn, is defined as the quality of information that helps users to increase the likelihood of correctly forecasting the outcome of past or present events, whereas feedback value is defined as the quality of information that enables users to confirm or correct prior expectations. Timeliness means having the information available to a decision maker before it loses its capacity to influence decisions.²⁴⁵
- (342) As noted, the other primary decision specific quality of decision usefulness under the FASB model is reliability.²⁴⁶ Reliability is defined as the quality of information that assures that information is reasonably free from error and bias and faithfully represents what it purports to represent, and comprises the

²⁴¹ FASB 2001, CON 2, Glossary of Terms

²⁴² FASB 2001, CON 2.33 incl. *figure 1: A Hierarchy of Accounting Qualities*, CON 2.133-.144

²⁴³ FASB 2001, CON 2, Glossary of Terms and CON 2.33 incl. *figure 1*, CON 2.123-.132, CON 2.161-.170

²⁴⁴ FASB 2001, CON 2.33 incl. *figure 1*

²⁴⁵ FASB 2001, CON 2, Glossary of Terms

²⁴⁶ FASB 2001, CON 2.33, *figure 1*

following ingredients: verifiability, representational faithfulness and neutrality. SFAC No. 2 defines the ingredients of reliability as follows:

verifiability: the ability through consensus among measures to ensure that information represents what it purports to represent or that the chosen method of measurement has been used without error or bias;

representational faithfulness: correspondence or agreement between a measure or description and the phenomenon that it purports to represent (sometimes called validity);

neutrality: absence in reported information of bias intended to attain a predetermined result or to induce a particular mode of behaviour.²⁴⁷

- (343) SFAC No. 2 also addresses the secondary and interactive quality comparability.²⁴⁸ Comparability is defined as the quality of information that enables users to identify similarities in and differences between two sets of phenomena. This concept includes consistency, which refers to the conformity from period to period with unchanging policies and procedures. Furthermore, the Concept Statement also defines completeness as the inclusion in reported information of everything material that is necessary for faithful representation of the relevant phenomena.²⁴⁹
- (344) Before comparing this accounting information approach to the information theory approach, some of the special aspects relating to the definitions above and the interaction between the concepts need to be explained. With respect to predictive and feedback value under the concept of relevance, SFAC No. 2 limits predictive and feedback value to their value as inputs to the predictive and confirmatory process, rather than their value as a prediction or confirmation in themselves.²⁵⁰ Furthermore, SFAC No. 2 points out that information theorists would assert that relevant is not an appropriate adjective with which to qualify the word “information”, since by their definition, information that is not relevant would be classified as data.²⁵¹
- (345) SFAC No. 2 also discusses the difference between reliability and effectiveness, which is classified as relevance in the Statement. In addition, it is noted that there are degrees of reliability – that is, reliability does not represent a dichotomy. With respect to the concept of representational faithfulness, the Statement notes that behavioural scientists would apply the term validity, which

²⁴⁷ FASB 2001, CON 2, Glossary of Terms

²⁴⁸ FASB 2001, CON 2.33, figure 1

²⁴⁹ FASB 2001, CON 2, Glossary of Terms

²⁵⁰ FASB 2001, CON 2.51-.55

²⁵¹ FASB 2001, CON 2.46-.50

is a measurement theory concept referring to whether or not a measurement actually measures what it purports to measure.²⁵²

- (346) The discussion on representational faithfulness as component of reliability also addresses the concepts of precision and uncertainty in relation to reliability and notes that reliability does not imply certainty or precision, but the use of ranges may convey information more reliably than a point estimate in certain circumstances.²⁵³ An example will best illustrate the relationship between reliability, precision, and uncertainty under the FASB definitions. One can predict with complete certainty (100 %) and reliability (verifiably, neutrally and representationally faithfully) that next year's revenues for a particular entity will be between negative and positive infinity. However, this prediction is irrelevant because it is so imprecise so as to have no predictive value whatsoever. In other words, required precision is a question of relevance and materiality, whereas uncertainty and risk represent a trade-off against precision and hence relevance and materiality.
- (347) SFAC No. 2 also distinguishes between reliability (representational faithfulness) as a quality of a predictor and reliability as a quality of a measure. The example given is one of a barometer, where its reliability as a quality of a measure would be determined by its ability to correctly measure air pressure, whereas its reliability as a predictor may be indicated by its use to predict future weather. The first is considered an appropriate application of the concept of reliability; in the second, the barometer is not being used appropriately because there are factors other than air pressure that may affect future weather. Consequently, in the accounting concept statement, the concept of reliability is used in the sense of measurement reliability.²⁵⁴
- (348) Moreover, the Section in SFAC No. 2 dealing with representational faithfulness as an ingredient of reliability addresses measurement bias. The Statement explains that there are two kinds of bias: bias in the measurement method so that the resulting measurement fails to represent what it purports to represent, and bias in the measurer, who through lack of skill or integrity may misapply a measurement method. Intentional bias is classified as neutrality, which is a separate ingredient of reliability that will be discussed below.²⁵⁵
- (349) The Section in SFAC No. 2 dealing with representational faithfulness as an ingredient of reliability includes a subsection that addresses the concept of completeness, which means that nothing is left out of the information that may be necessary to ensure that it validly represents the underlying events and conditions. The subsection notes that both reliability and relevance imply

²⁵² FASB 2001, CON 2.58-.71

²⁵³ FASB 2001, CON 2.72-.76

²⁵⁴ FASB 2001, CON 2.72-.76

²⁵⁵ FASB 2001, CON 2.72-.76

complete information – that is, for information to be reliable and relevant, it is necessary for it to be complete.²⁵⁶

- (350) A separate subsection of the Section dealing with reliability discusses the concept of verifiability. The Statement asserts that verification is more successful in minimizing measurer than measurement bias and explains that verifiability can be measured by looking at the dispersion of a number of independent measurements of some particular phenomenon: the closer the measurements are likely to be clustered together, the greater the verifiability of the number used as a measure of the phenomenon. Furthermore, verifiability is not necessarily equivalent to objectivity, since some measurement methods are more objective than others but are less verifiable than the less objective methods. In addition, it is important to distinguish between the verification of a measurement and the verification of the measurement procedure. Verification of the measurement procedure tends to minimize measurer bias but usually does not alleviate any bias resulting from the selection of measurement methods. The statement also notes that measurement methods that are more verifiable do not necessarily lead to results that are more representationally faithful.²⁵⁷
- (351) SFAC No. 2 also addresses conservatism, which is defined as a prudent reaction to uncertainty to try to ensure that uncertainty and risks inherent in situations are adequately considered. However, it is apparent that conservatism refers to the process by which information is prepared rather than to its qualitative characteristics.²⁵⁸
- (352) **In conclusion, it appears that SFAC No. 2 represents a sophisticated application of information theory to accounting information. It may be useful to compare the information theory approach with the approach used under accounting theory.**

4. A COMPARISON AND SYNTHESIS OF THE ACCOUNTING INFORMATION AND INFORMATION THEORY APPROACHES

Issue: How do information theory and the accounting information theory approaches compare?

- (353) A comparison of the accounting information and information theory approaches using the accounting information approach as a basis suggests that there is considerable overlap between the two approaches, but there are important differences. The information theory approach addresses the accessibility of information, which is not addressed under the accounting information approach.

²⁵⁶ FASB 2001, CON 2.77-.78

²⁵⁷ FASB 2001, CON 2.79-.80

²⁵⁸ FASB 2001, CON 2 Glossary of Terms, CON 2.91-.97

Clearly, otherwise relevant and reliable information that cannot be accessed is not decision useful. While both approaches address timeliness, the information theory approach distinguishes between the concepts “time required” and “time elapsed”. In addition, the information theory approach addresses the concepts of “currency” and “expiry disclosure”.

- (354) Comprehensiveness under the information theory approach appears to be equivalent to completeness under the accounting information approach. While freedom from error is mentioned in the definition of reliability separately from freedom from bias (which is only one source of possible error) and faithful representation pursuant to the accounting information approach, it is not included as an ingredient of reliability. This means that the concept of accuracy (the degree of freedom from error) under the information theory approach needs to be incorporated into the accounting information approach.
- (355) The concept of clarity (the degree to which information is free from ambiguity) under the information theory approach appears to be an element of understandability and could certainly be included thereunder together with intelligibility. Nevertheless, the information theory approach notes that there are both form and content considerations for clarity and addresses the level of detail required (i.e., the degree of aggregation or summarisation). Furthermore, the information theory approach covers the concepts of order and presentation. The information theory approach also includes the concept of conciseness with which to evaluate information content, which in turn encompasses the notions of discrimination and information compactness or brevity. Conciseness could be subsumed under the understandability concept. The assertion under the information theory approach that the correct media need to be used for information to be intelligible could be subsumed under the concept of intelligibility noted above. Both verifiability and freedom from bias (neutrality) as defined by the information theory approach are included in the accounting information approach.
- (356) The accounting information approach does not explicitly encompass the concept of flexibility (the usability of the information for more than one user) even though it recognizes multiple users. The question is whether flexibility is a concept that is required to determine the suitability of information associated with the elements of assurance engagements. It probably depends upon the nature of the engagement: where there are multiple users with different needs, such flexibility is required, whereas it may not be so required for engagements with a single user. Perhaps the concept of flexibility ought to be extended to include more than one use for a single user. Nevertheless, even with this extension, whether or not flexibility is a required qualitative characteristic or attribute of information on elements of assurance engagements still appears to depend on the engagement. Consequently, the concept of flexibility appears to be needed.

- (357) Information theory also encompasses the concept of quantifiability (the precision with which information can be formally recorded and communicated, which is usually defined in terms of its logical – not numerical – quantifiability). In a sense, what is being addressed in this concept is whether the information is “measurable” or “verifiable” due to its degree of logical quantifiability. Certainly, the concept of logical quantifiability ought to be included as an element of verifiability, since if information is not logically quantifiable, it is not verifiable.
- (358) The accounting information approach addresses the fact that for information to be useful, its benefits must exceed the costs of obtaining it. Under information theory, on the other hand, it is noted that information is valuable to a user only if its marginal benefit exceeds its marginal cost. The assertion under information theory appears to be more precise than that used in SFAC No. 2, and therefore the information theory approach of marginal costs and benefits ought to be applied.
- (359) **In conclusion, the accounting information approach appears to be superior to the information theory approach for our purposes, but the accounting theory approach needs to be supplemented by a number of concepts from information theory. These include: accessibility, accuracy as a component of reliability, flexibility as a component of relevance, unambiguity as a component of understandability, and logical quantifiability as an element of verifiability. In addition, it may be useful to distinguish between time required, time elapsed, currency and expiry disclosure. The information theory approach also addresses additional concepts in relation to form and content considerations for clarity, the level of detail (aggregation and summarisation), conciseness (discrimination and brevity or compactness) and the use of the appropriate media. Furthermore, information is useful only if its marginal benefits exceed its marginal costs. These concepts become more important when assurance engagements other than audits of financial statements are considered.**

5. A COMPARISON AND SYNTHESIS WITH OTHER ACCOUNTING INFORMATION APPROACHES

Issue: How do other accounting information approaches compare to that taken in SFAC No. 2 ?

- (360) CICA Handbook Section 1000 (and in particular the paragraphs 1000.16-24) addresses the benefits and costs of accounting information, materiality and the qualitative characteristics of accounting information. Rather than defining relevance and reliability in terms of “decision usefulness, the CICA Handbook Section 1000 speaks of the qualitative characteristics of information that make

information useful to users. In other words, usability includes understandability as a separate qualitative characteristic in addition to relevance and reliability (and comparability – see below). The other definitions and concepts used in this Standard are not significantly different from those used in SFAC No. 2 with the exception of the following issues:

verifiability is tied into the precision of the consensus (whereas precision in SFAC No. 2 is tied into relevance and materiality, and the “precision” of the consensus is termed “the degree of dispersion”

neutrality encompasses the concept of completeness, which in SFAC No. 2 is a characteristic that affects both relevance and reliability, which includes freedom from bias

conservatism is viewed as a component of reliability

comparability is regarded as a separate qualitative characteristic²⁵⁹

- (361) An analysis of the paradigm shift of the CICA approach compared to the FASB approach – from decision-usefulness of information to a general usefulness of information to users – and the consequent incorporation of understandability and comparability as two of the four qualitative characteristics of information suggests that the concepts were not adequately delineated. In particular, understandability is not, in itself, an independent qualitative characteristic of information, since it also depends on user characteristics. The assertion that comparability is a characteristic not of information in itself but such information in relation to other information is correct, but this suggests that comparability cannot be a characteristic of a particular piece of information in itself. Nevertheless, it is true that it is a characteristic of information in general.
- (362) Based on the analysis provided in SFAC No. 2, the idea that precision refers to the range of measurement and the range of values obtained by other practitioners is a “degree of dispersion” appears to be superior to the idea that precision refers to the consensus only. In addition, the argument that completeness affects both relevance and reliability (representational faithfulness and neutrality) appears to be sounder than associating completeness with neutrality alone.
- (363) While the concept of conservatism is certainly valid in the preparation of information, because conservatism refers to the process by which information is prepared rather than to its qualitative characteristics (i.e., conservatism leads to information that is more representationally faithful, neutral and verifiable), it probably should not be included as a separate qualitative characteristic.
- (364) In July 1989, the IASC issued the IAS Framework for the Preparation and Presentation of Financial Statements²⁶⁰ (also known as the “IAS Conceptual

²⁵⁹ CICA 2001, *Handbook Vol. I*, Section 1000.16-.23

Framework”). The approach was very similar to the CICA approach, and so to that extent the analysis of the issues in relation to the CICA approach also applies to the IASC approach. In particular, like the CICA approach, understandability, relevance, reliability and comparability are included as qualitative characteristics of information that make it useful to users.²⁶¹

- (365) Unlike the CICA approach, although an equivalent definition of materiality is used, materiality is defined as a component of relevance rather than as a pervasive constraint. Nevertheless, materiality is also mentioned in the definition of reliability. The IASC also added an additional component to reliability: substance over form, which the CICA approach had defined as a part of representational faithfulness. Furthermore, completeness is treated as a component of reliability in general rather than as a part of neutrality as in the CICA approach, but the effect of completeness on relevance was recognised. The IASC Framework also treats timeliness as a constraint on relevance, rather than as a separate component of relevance. An interesting omission in the IASC Framework is the fact that verifiability, which both the CICA and FASB define as a component of reliability, is not mentioned.²⁶²
- (366) The categorization of materiality as a part of relevance instead of as a pervasive constraint is certainly closer to the legal treatment of materiality (even under different definitions) in the U.S.²⁶³ and, given the close relationship between materiality and required precision in accounting, deserves some consideration. Nevertheless, in considering this categorisation, the assertion that materiality also affects reliability as noted in the IASC Framework also needs to be taken into account.
- (367) Certainly, if substance over form is a pertinent criterion for a particular type of information, then substance over form ought to be included as an aspect of representational faithfulness, to which it relates, rather than as a separate component of reliability. The treatment of completeness as a component of reliability is superior to its categorisation under neutrality as was done by the CICA, but even the IASC Framework noted in its description of completeness its affect on relevance. Consequently, the U.S. treatment of completeness, in which it is an aspect that affects both relevance and reliability, appears to be preferable.
- (368) The IASC categorization of timeliness as a constraint on both relevance and reliability rather than as a component of relevance, as was shown in SFAC No. 2 and CICA Handbook Section 1000, has some merit for accounting information because of the frequent trade-off between relevance and reliability for information that bears some assumptions about the future. For other kinds of

²⁶⁰ IASB 2002, *IASB Framework*

²⁶¹ IASB 2002, *IASB Framework*, par. 24

²⁶² IASB 2002, *IASB Framework*, par. 31-38

²⁶³ R.O. Lempert et al., pp. 203-205

information, where the evidence supporting particular assertions may become less accessible over time, such as for assurance on certain events at a point in time or conditions over time in the past, this relationship may not hold true. However, it is always true that information that has not been delivered to a user by the time needed loses its relevance. Consequently, the view that timeliness is a factor in determining relevance appears to be the correct view.

- (369) The omission of verifiability in the IASC Conceptual Framework is difficult to explain, since the concept does appear to be very important in determining the reliability of information as defined in the other two standards.
- (370) In December 1999, the Accounting Standards Board in the UK issued its Statement of Principles for Financial Reporting, which, in chapter 3 addresses the qualitative characteristics of accounting information. This Statement is similar to both the CICA and IASC approaches to qualitative characteristics of information, so to that extent analyses that applied to the CICA and IASC approaches also apply to the UK Statement. Much like the CICA and IASC approaches, the UK Statement emphasizes four characteristics of useful information: relevance, reliability, comparability and understandability.²⁶⁴
- (371) While the other pronouncements recognize the trade-off between relevance and reliability, the Statement lays greater emphasis on relevance compared to reliability by stating that if a choice exists between relevant and reliable approaches that are mutually exclusive, the approach chosen needs to be the one that results in the relevance of the information provided being maximised. The Statement includes a component of reliability entitled “free from material error”, which coincides with the synthesis achieved in the previous Section with the inclusion of the concept of accuracy. Furthermore, the Statement attaches the concept of completeness to reliability much like the IASC Framework. In addition, the concept of prudence is included in the concept of reliability, which is similar to the treatment in the IASC Framework and the CICA treatment of conservatism.²⁶⁵
- (372) Unlike the IASC Framework, but consistent with SFAC No. 2 and the CICA Handbook, materiality is regarded as a threshold quality that is pervasive. Like the other pronouncements, the Statement considers consistency to be one aspect of comparability, but adds the concept of disclosure. In addition to addressing user’s characteristics (abilities) as part of the concept of understandability, the Statement also addresses a characteristic of the information not covered by the other pronouncements: aggregation and classification.²⁶⁶

²⁶⁴ ASB, *Accounting Standards 2002/2003* (Croner CHH Group Ltd.: London, 2002), *Statement of Principles for Financial Reporting*, Chapter 3: The qualitative characteristics of financial information, 3.1-.37

²⁶⁵ ASB 2002, *Accounting Standards, Statement of Principles for Financial Reporting*, 3.1-.20

²⁶⁶ ASB 2002, *Accounting Standards, Statement of Principles for Financial Reporting*, 3.1-.37

- (373) The analysis of the UK Statement, which follows, is confined to those concepts that differ from all of the other previously analysed pronouncements, since those aspects similar to any of the previously analysed pronouncements have already been assessed for their merits. In particular, the assertion that relevance takes priority over reliability needs to be reflected upon more closely. Both relevance and reliability are a matter of degree, and the degree of each required for information to be useful depends upon the use to which the information is being put – i.e., the purpose for which the information is being sought. Consequently, while the assertion emphasising relevance more than reliability might have some merit for accounting information, it may not be appropriate for information in general. Hence, it would not be appropriate to accept this assertion for information and elements of assurance engagements in general.
- (374) Of particular interest is the addition of “disclosure” to the concept of comparability. It appears reasonable that disclosure of the principles applied is required for users to be able to assess whether or not information is comparable with other information and that comparable disclosure per se is a prerequisite for two sets of information to be comparable. The question that needs to be addressed is whether the inclusion of the concept of “disclosure” adds anything to the concept of comparability and whether there are other factors that would need to be included as well. Certainly, without comparable disclosure of information, two sets of information are not comparable, but this is like saying that the information provided should cover the same content to be comparable, which appears obvious. Furthermore, comparable disclosure also applies to whether or not information is consistent over time – that is, disclosure of information must be consistent over time for information to be consistent. This assertion also appears to be superfluous.
- (375) The other assertion with respect to disclosure – that is, that the disclosure of the basis upon which the information was prepared and presented is important for users to be able to assess comparability – is, as noted, a reasonable assertion. However, this assertion also applies to consistency, for users would not be in a position to determine the consistency of information over time if changes in the basis of the preparation of this information are not disclosed. Furthermore, while the disclosure of the basis for the preparation and presentation of the information is of greater importance to comparability when the basis is different compared to when the basis is not different and users can assume the same basis, such disclosure is still useful to users when the basis is not different to confirm their assumptions. Consequently, this aspect of disclosure (disclosure of the basis of preparation and presentation) is a concept for which there may be some merit of its retention.
- (376) The UK Statement also addresses two characteristics of understandability of information not covered by the other pronouncements: aggregation and classification. There is some merit to the inclusion of these concepts under

understandability, but it appears that other concepts in relation to understandability that are connected to these two would also then need to be included, such as conciseness, unambiguity, etc. This issue will be covered in greater detail in the next Section.

- (377) Another accounting information approach of interest is that depicted in the Discussion Paper issued the IFAC Information Technology Committee in March 2002 entitled “E-Business and the Accountant: Risk Management for Accounting Systems in an E-Business Environment”²⁶⁷. The contents of the IFAC Discussion Paper are based primarily upon the Entwurf IDW Stellungnahme zur Rechnungslegung: Grundsätze ordnungsmäßiger Buchführung bei Einsatz von Informationstechnologie (IDW ERS FAIT 1) [Draft IDW Accounting Principle: Principles of Proper Accounting When Using Information Technology (Draft IDW AP FAIT 1)], issued in Germany in March 2001²⁶⁸. The German pronouncement represents an application of German Principles of Proper Accounting in an IT environment. This accounting information approach concentrates on principles for reliable accounting information.²⁶⁹
- (378) In the IDW Discussion Paper, accounting information security is considered to be a prerequisite for appropriate accounting information processing. The Discussion Paper identifies the following accounting information security requirements:
- Integrity – data and information are complete and accurate and systems are complete and appropriate and the data, information and systems are protected against unauthorised modification or manipulation
 - Availability – constant availability of systems and data and information and that systems can be made operable within a reasonable period of time
 - Confidentiality – data obtained from third parties cannot be transmitted or disclosed without authorisation
 - Authenticity – the traceability of information or data to the individual who initiated it

²⁶⁷ IFAC, Information Technology Committee, *E-Business and the Accountant: Risk Management for Accounting Systems in an E-Business Environment* (IFAC: New York, 2002)

²⁶⁸ Institut der Wirtschaftsprüfer in Deutschland e.V. [Institute of Public Auditors in Germany, Incorporated Association] (IDW), Fachausschuss für Informationstechnologie [Technical Committee for Information Technology] (FAIT), Entwurf IDW Stellungnahme zur Rechnungslegung: Grundsätze ordnungsmäßiger Buchführung bei Einsatz von Informationstechnologie (IDW ERS FAIT 1) [Draft IDW Accounting: Principles of Proper Accounting When Using Information Technology (Draft IDW AP FAIT 1)], (IDW-Verlag: Düsseldorf, Germany, 2001)

²⁶⁹ IFAC, Information Technology Committee, p. 9

Authorisation – only authorised persons may access certain data, information and systems and only authorised persons can use the rights defined for this system

Non-repudiation – the ability of procedures to bring about desired legal consequences with binding effect²⁷⁰

(379) The criteria for appropriate accounting information processing encompass:

Completeness – the extent to which information being entered into a system is complete

Accuracy – processed information should accurately reflect actual events and circumstances

timeliness – the information should be recorded on a timely basis after the occurrence of the actual events

assessability – information should be verifiably so that it can be traced back to the original entries or documents that support that information; an expert third party should be able to obtain an insight into the meaning of that information within a reasonable period of time

order – the information should be organised by nature and in some type of chronological order

inalterability or logs – no information or record thereof should be changed such that its original content can no longer be identified, unless the change to the original content can be identified by means of a log of such alterations²⁷¹

(380) The criteria for appropriate accounting information processing apply to the input, processing, output and storage of information and data.²⁷² Of particular importance to the input of information or data is an appropriate entry function that ensures the compliance with the above-noted criteria.²⁷³ Furthermore, the system for processing and storing the information or data need to be appropriately documented so that an expert third party is in a position to assess the adequacy of procedures applied.²⁷⁴ There are also issues in relation to the storage of information or data with respect to retention requirements.²⁷⁵

(381) It should be noted that, unlike the treatment in other accounting information approaches, the IFAC discussion paper is directed towards process rather than

²⁷⁰ IFAC, Information Technology Committee, p. 10

²⁷¹ IFAC, Information Technology Committee, pp. 11-12

²⁷² IFAC, Information Technology Committee p. 11

²⁷³ IFAC, Information Technology Committee, pp. 13-15

²⁷⁴ IFAC, Information Technology Committee pp. 15-16

²⁷⁵ IFAC, Information Technology Committee, pp. 16-17

outcome. By doing so, it addresses evidentiary problems that are not addressed by the other accounting information approaches.

- (382) **In conclusion, while, with the exception of the accounting information approach depicted in the IFAC discussion paper noted above, the overall thrust of the accounting information approaches is the same, they differ on some important details. The concepts applied in the IFAC discussion paper need to be seen in the context of information processing and evidentiary requirements. However, a thorough examination of the merits of each of these detailed approaches ought to include an analysis of some of the other approaches, such as measurement theory and attestation or assurance standards, that are applied in this kind of context.**

6. A COMPARISON AND SYNTHESIS OF APPROACHES IN CURRENT ATTESTATION AND ASSURANCE STANDARDS

Issue: How do the accounting information approaches compare to the approaches used by current attestation and assurance standards?

- (383) The first general Standards issued in the area of attestation and assurance engagements were those in SSAE No. 1 of the AICPA that were issued in 1986 and then codified into AT §100.²⁷⁶ While these Standards borrowed heavily from the auditing standards and statements applicable under US GAAS, they also broke new ground for engagements not involving financial statements. For engagements not involving financial statements, one of the core problems is the frequent lack of “generally accepted” or established criteria with which to evaluate the subject matter. This problem generally does not need to be addressed for financial statements, since these are usually prepared based on financial reporting frameworks that are legally required, generally accepted, or comprehensive and disclosed.
- (384) To address this problem, AT §100 covers the issue of reasonable criteria and requires that criteria be reasonable for an attestation engagement to be performed.²⁷⁷ These concepts appear to have been borrowed in part from information theory and hence accounting theory (i.e., SFAC No. 1) and measurement theory. Nevertheless, there are important differences – not least the fact that rather than addressing the characteristics of information in general, AT §100 addresses the characteristics of the assertions generated by the criteria and requires that measurement and disclosure criteria have an appropriate balance of the following characteristics:

“Relevance

²⁷⁶ AICPA 2001, AT §100

²⁷⁷ AICPA 2001, AT §100.14-.16

- *Capacity to make a difference in a decision* – The assertion is useful in forming predictions about the outcomes of past, present and future events or in confirming or correcting prior expectations.
- *Ability to bear upon uncertainty* – The assertion is useful in confirming or altering the degree of uncertainty about the result of a decision.
- *Timeliness* – The assertion is available to decision makers before it loses its capacity to influence decisions.
- *Completeness* – The assertion does not omit information that could alter or confirm a decision.
- *Consistency* – The assertion is measured and presented in materially the same manner in succeeding time periods or (if material inconsistencies exist) changes are disclosed, justified, and, where practical, reconciled to permit proper interpretations of sequential measurements.

Reliability

- *Representational faithfulness* – The assertion corresponds or agrees with the phenomena it purports to represent.
- *Absence of unwarranted inference of certainty or precision* – The assertion may sometimes be presented more appropriately using ranges or indications of the probabilities attaching to different values rather than as single point estimates.
- *Neutrality* – The primary concern is the relevance and reliability of the assertion rather than its potential effect of a particular interest.
- *Freedom from bias* – The measurements involved in the assertion are equally likely to fall on either side of what the assertion represents, rather than more often on one side than the other.²⁷⁸

(385) A comparison of these concepts with those in the previous four Sections reveals that there are many similarities to some of the pronouncements already analysed, but there are also important differences. The comparison and synthesis in this Paper will concentrate on the differences. While AT §100 does address predictive and feedback value (capacity to make a difference in a decision) aspect of relevance, it splits this capacity between those causing a change of decision and those that just cause users to adjust their assessments of risk (ability to bear upon uncertainty). This appears to be a useful addition to the definition of relevance.

(386) Of particular interest is the placement of the completeness characteristic. SFAC No. 2 includes completeness under representational faithfulness (reliability) for

²⁷⁸ AICPA 2001, AT §100.18

relevant phenomena (i.e., the relevance aspect is recognised), the CICA Handbook includes completeness as an aspect of neutrality with a reference to representational faithfulness and the IASC Framework and the Statement of the ASB in the UK treat completeness as an aspect of reliability in general. On the whole, it appears that completeness is an aspect of both relevance and reliability.

- (387) AT § 100 omits a reference to comparability. This is likely because for particular kinds of attestation engagements, there may be no comparable other engagements or information for comparisons. This, however, may also be true for “one-off” engagements, which therefore begs the question as to why consistency is included. Consequently, while comparability may not always be applicable, it ought to be included, together with consistency.
- (388) The question remains as to whether or not the SFAC No. 2 view of comparability affecting both reliability and relevance is more appropriate than the view that comparability as a separate concept (CICA, IASC, ASB in UK) or comparability as an element of relevance. It may be argued, on the one hand, that the degree of reliability between two sets of information that are compared for the user purposes ought to be the same and that therefore comparability is an aspect of reliability, but on the other hand, one could also argue that just because in one case the information is more reliable than in another does not mean that it may not be relevant to compare the two sets of information. Of course, users would have to be made aware of the differences in reliability by means of disclosure. Furthermore, this approach assumes the users decided that such a comparison is relevant. Consequently, when relevant due to the nature of the engagement or the information therefrom, comparability is a component of relevance.
- (389) Under the definition of reliability, AT §100 included a new concept “absence of unwarranted inference of certainty or precision”. Strictly speaking, if an inference of certainty or precision is made that is unwarranted, it may be argued that such inference would lead to the assertions not being representationally faithful. Consequently, it appears that this new concept ought to be subsumed under representational faithfulness.
- (390) AT §100 also distinguishes between neutrality and freedom from bias. Strictly speaking, bias or neutrality can result from measurement bias (both due to the inherent limitations of the measurement criteria or the particular selection of the criteria) and measurer bias. Consequently, these two concepts ought to be merged into one with three separate aspects.
- (391) One important omission in the AT §100 characteristics of measurement and disclosure criteria is the concept of verifiability – that is, that different practitioners would be in a position to reach similar conclusions from the same evidence using these criteria under similar circumstances. Why this particular

important concept was excluded is not clear. Another concept that appears to be missing is understandability.

(392) In 1997, the CICA Handbook issued its CICA Handbook Section 5025 “Standards for Assurance Engagements”. The general standards herein require the practitioner to identify or develop criteria that are suitable for evaluating the subject matter, mention that the criteria are context-sensitive, and should yield information useful to intended users.²⁷⁹ The CICA characteristics of suitable criteria are:

- “Relevance. Relevant criteria contribute to findings and conclusions that meet the objective of the engagement.
- Reliability. Reliable criteria result in consistent conclusions when used by different practitioners in similar circumstances.
- Neutrality. Neutral criteria are free from bias that would cause the practitioner’s findings and conclusions to mislead intended users of his or her report.
- Understandability. Understandable criteria are clearly stated and are not subject to significantly different interpretations by intended users.
- Completeness. Complete criteria exist when all criteria that could affect the practitioner’s conclusion are identified or developed, and used.”²⁸⁰

(393) First, it should be noted that the CICA definition of suitability is quite restricted. Furthermore, under the CICA definitions, relevance was defined in terms of the objectives of the engagement rather than predictive value and feedback value. As this Paper has concluded in Chapters II and III that the objective of an assurance engagement is to provide users with information for decision-making, it appears that the CICA definition of relevance is redundant and does not add value to the concept of relevance.

(394) The CICA definition of reliability is closer to the concept of verifiability as defined in information theory, SFAC No. 2, CICA Handbook Section 1000 and the Statement of the ASB of the UK. Consequently, since the term verifiability is more accepted for expressing this concept, that term rather than reliability ought to be used. The first part of the definition of neutrality (freedom from bias) mirrors that of the other accounting standard setters and that of AT §100, but the reference to misleading intended users appears to be superfluous, since the misapplication of any of the other concepts may also lead to the misleading of users.

²⁷⁹ CICA 2001, *Handbook Vol. I*, Section 5025.35-.37

²⁸⁰ CICA 2001, *Handbook Vol. I*, Section 5025.39

- (395) The CICA definition of understandability does not appear to be a definition in a formal sense, but it does provide two more aspects of understandability that had not been addressed previously: clarity and unambiguity. The definition of completeness is similar to that used by other pronouncements, but it is of interest that it is considered separately and not as part of relevance and reliability.
- (396) It is important to note that the concepts of representational faithfulness, predictive and feedback value, comparability and timeliness were not addressed by the standards.
- (397) The IAPC issued ISA 100 “Assurance Engagements” in 2000. This standard also addressed the characteristics determining the suitability of criteria. These definitions are, but for a few minor differences, very similar to the CICA definitions and are therefore subject to the same analyses for the most part.
- (398) The definition of relevance added the concept that criteria have value in terms of improving the quality of the subject matter or its content, so as to assist decision making by intended users. The definition of reliability included the concepts of reasonably consistent evaluation or measurement and, where relevant, presentation of the subject matter. In addition, the characteristic of understandability was expanded to include the concept of comprehensiveness.
- (399) The idea that relevant criteria in an assurance engagement have value in terms of improving the quality of the subject matter or its content, so as to assist decision making by intended users appears reasonable in light of an assurance engagement performed on information or data. In this case, the performance of the assurance engagement allows the practitioner to provide advice to the responsible party on possible problems noted in the quality or content of the subject matter that can then be corrected. This may also apply to other kinds of subject matter in which the practitioner is engaged to obtain assurance on the condition of the subject matter and the relevant point in time is prior to the completion of the engagement.
- (400) On the other hand, if the practitioner has been engaged to obtain assurance about subject matter at a particular point in time or period of time in the past and the condition of the subject matter cannot be changed retroactively, then the relevant criteria are not useful in improving that subject matter or its content, even though the subject matter or its content can be improved in future based on the results of the engagement. However, this improvement is, in a sense, a consulting and not assurance function, even though it may be part of the same engagement package (note Chapter III on the kinds of engagements and combined engagements). Consequently, relevant criteria need not have value in terms of improving the quality of the subject matter or its content.

²⁸¹ IFAC 2001, ISA 100.45

- (401) The addition of reasonably consistent measurement, and where relevant, presentation of the subject matter is consistent with the definitions of verifiability of most of the other pronouncements (see the discussion on the CICA's use of the term reliability for assurance engagements).
- (402) In 2000, the Fédération des Experts Comptables Européens (FEE) issued a survey entitled "The Auditor's Report in Europe". This Report included a subsection (3.3) that addressed the basic criteria for determining the form and content of the auditor's report. These criteria were based on information theory, accounting theory and assurance or attestation standards. The Report addressed the cost-benefit presumption for auditors' reports and the fact that such reports need to be understandable and suitable. The Report also recognised that there may be trade-offs between understandability and suitability of the report. Understandability was defined as a quality that refers to the degree to which a user can perceive the significance of information for own purposes. Suitability was described as encompassing relevance and reliability.²⁸²
- (403) While reliability was not explicitly defined except for the application of the concept of accuracy, relevance was defined as the capacity to bear on the purpose of the user by satisfying the following characteristics in that the information²⁸³:
- "either has the capacity to make a difference in a decision or to confirm or alter the degree of uncertainty about the result of a decision (influence)
 - is available to the user before it loses its capacity to influence (timeliness)
 - includes data with a capacity to influence (completeness)
 - is comparable with competing or corroborating relevant information in fact (comparability) and over time (consistency)."²⁸⁴
- (404) By restricting the definition of suitability to relevance and reliability, like the CICA and ISA 100, the FEE Report has a very restricted definition of suitability. The definition of understandability can be considered to be in consonance with other standard definitions, even though the contents thereof were not described. The definition of relevance is very similar in content to that in AT §100, but it combines "capacity to make a difference in a decision" and "ability to bear upon uncertainty" into the term "influence" and extends the definition of relevance to include comparability in addition to consistency. Both of these positions have some merit.

²⁸² Fédération des Experts Comptables Européens, *The Auditor's Report in Europe* (FEE: Brussels, 2000), p. 9

²⁸³ FEE 2000, p. 9

²⁸⁴ FEE 2000, p. 9

- (405) In 2001, the AICPA issued SSAE No. 10 which was codified into AT §101 “Attest Engagements”. This Standard represents a revision of AT §100 as previously conceived. AT §101 specifies that an attest engagement can be carried out only if the criteria are available to users. The Standard adopts the restricted definition of suitability of criteria²⁸⁵ applied in the CICA Handbook and ISA 100, but the attributes of suitability are somewhat different and are defined as follows:
- *Objectivity* – Criteria should be free from bias.
 - *Measurability* – Criteria should permit reasonably consistent measurements, qualitative or quantitative, of subject matter.
 - *Completeness* – Criteria should be sufficiently complete so that those relevant factors that would alter a conclusion about subject matter are not omitted.
 - *Relevance* – Criteria should be relevant to the subject matter.”²⁸⁶
- (406) The introduction of the criterion of availability has some merits, since criteria that are not available to users are not likely to be understood and therefore the information provided will not be understandable. The new attributes represent a significant simplification of the required characteristics of measurement and disclosure versus those in AT §100. The question is, whether this simplification represents an improvement or causes new difficulties. The term objectivity has generally been used in connection with the state of mind of the practitioner rather than in connection with the reliability of measurements, so this change in terminology is suspect. Nevertheless, the concept of freedom from bias as a whole appears to have been covered in this definition.
- (407) The use of the term measurability is also not without problems, since measurability usually refers to the ability to measure rather than the reliability or precision with which something can be measured. Hence, this change in terminology is also suspect. The definition applied in this case appears to represent the concept of verifiability as defined in a number of pronouncements previously analysed.
- (408) The definition of completeness appears to be appropriate given the definitions used in other pronouncements, but the reference to relevant factors indicates that completeness ought to be subsumed under the concept of relevance in this instance. The definition of relevance is not a definition, but a pure tautology of no value.
- (409) **In conclusion, it appears that, while the accounting theory approach and the approaches used by attestation and assurance standards are similar, there are many differences. Furthermore, the approaches used by**

²⁸⁵ AICPA 2001, AT §101.24

²⁸⁶ AICPA 2001, AT §101.24

attestation and assurance standards also differ significantly amongst themselves.

7. THE MEASUREMENT THEORY APPROACH

Issue: What are the concepts used by measurement theory to describe the qualitative characteristics of measurement?

- (410) It was noted in the previous Sections that measurement theory helps provide the basis for both the accounting information approach and the assurance or attestation approach to the characteristics of information and hence of elements of assurance engagements. It may therefore be useful to touch upon measurement theory directly to help ensure that the concepts compared and synthesised in the previous Sections are appropriately defined and are complete.
- (411) Measurement theory, in particular for the behavioural sciences, has developed two major criteria for determining the value of measurement instruments validity and practicality, which can be defined as follows:
- Validity (a scientific requirement): the extent to which a measurement measures what one actually desires to measure. Validity comprises:
 - content validity: the degree to which the content of the items measured adequately represents the universe of all relevant items under study (in sampling referred to as representativeness); pertains to inferences about measurement construction rather than inferences about measurement results – that is, whether the measurement instrument (set of measurements operations) is adequate to meet the purposes for which it is being used
 - criterion-related validity: the degree to which a predictor is adequate in capturing the relevant aspects of the criterion. There are two kinds of criterion-related validity:
 - concurrent criterion-related validity: description of the present; criterion data is available at same time as predictor results
 - predictive criterion-related validity: prediction of the future; criterion is measured after the passage of time – that is, this concept of validity relates to whether a measurement furnishes results that are useful for predicting future events or conditions

Furthermore, the validity of a criterion also depends upon two qualities:

- relevance: the degree to which the criterion is defined and described in terms judged to be proper measures of the attribute or property in question
 - freedom from bias: the degree to which the criterion allows measurements that tend towards predetermined results
- construct validity: identification of the underlying constructs being measured and a determination of how well the measurement represents them – i.e., do the observable relations being measured (the set of operations) adequately represent the construct (an abstract variable constructed to represent important attributes) that embodies certain theorems about these observable relations that can be tested empirically; in other words the construct validity of a measurement operation relates to the empirical evidence in support of the measure in relation to certain observable events or conditions implied by the construct.
 - reliability: the accuracy and precision of a measurement procedure. Reliability encompasses:
 - stability: the degree to which consistent results are achieved with repeated measurements of the same subject matter with (a) the same instrument over time or (b) under different conditions, or the consistency of the measurement operation
 - equivalence: the degree to which alternative forms of the same measure (due to different measurers or variations in the sample of items chosen for the measurement) produce the same or similar results
 - internal consistency: degree to which instrument items are homogeneous and reflect the same underlying constructs

There are two considerations that need to be satisfied to achieve reliability:

- accuracy: the degree to which bias is absent from the measurement (i.e., the lack of systematic variance, or error, which is defined as the variation in measures due to some known or unknown influences that cause results to tend in one direction more than another)

- precision: the degree to which the random fluctuations in the measurement process (error) remain after having adjusted for systematic variance; these may be caused by the imprecision of the operation, lack of information, misinformation, miscalculation, etc.; precision also refers to the number of significant digits in a number (with the last digit subject to a measure of tolerance representing unsystematic error) and the degree of refinement of a measurement operation
 - Practicality (an operational requirement): the economy, convenience and interpretability of the measurement procedure. Practicality encompasses:
 - economy: a sufficiently valid measurement should be undertaken at minimum cost
 - convenience: the degree to which the measurement process is easy or difficult; this concept includes the factor availability, which represents the degree to which the information necessary for analysis is available
 - interpretability: the degree to which those evaluating the measurement can interpret its results²⁸⁷
- (412) The description above includes reliability as a component of validity even though the behavioural sciences generally classify reliability as a separate third component of value in addition to validity and practicality. Since, in the behavioural sciences, reliability is considered to be a contributor to validity and represents a necessary but not sufficient condition for validity²⁸⁸, the categorisation of reliability as an independent component that is separate from validity does not appear to be theoretically sound, even though it may be a useful division for practical purposes.
- (413) Measurement theory also identifies a number of sources of error in measurement (which are not mutually exclusive), including:
- Measurement operations stated imprecisely (the rules of measurement are vague or ambiguous and are subject to varying interpretation).
 - Measurer errors (misinterpretation of measurement operation, intentional bias or errors of measurement by the measurer).
 - Instrument errors (the instrument may be defective or flawed)

²⁸⁷ These concepts have been adapted and synthesized from: D.R. Cooper and C.W. Emory, pp. 148-156, 201; and V. Kam, pp. 505-507, 532-537

²⁸⁸ D.R. Cooper and C.W. Emory, p. 153

- Errors resulting from the environment (factors in the environment affect the measurement operation)
- Vague attribute (the attribute being measured is not clearly defined)²⁸⁹
- Respondent error sources (errors resulting from the behaviour of respondents when behaviour of individuals or groups of individuals is being measured)²⁹⁰

- (414) Furthermore, measurement theory differentiates between fundamental, derived and fiat measurement. Examples of fundamental measurements in physics are mass and volume; an example of a derived measurement is density, which is the mass per unit volume. Fiat measurements are explained below.
- (415) Under measurement theory, fundamental measurements are deemed “measurements”, since numbers are assigned to the property being measured by reference to particular axioms or laws,²⁹¹ whereas derived measurements appear to represent conclusions derived from fundamental measurements – i.e., an evaluation based upon a definition of that derived measurement in relation to the fundamental measurements²⁹² because the derived measurement depends on the measurement of two or more other properties.²⁹³
- (416) Fiat measurements are defined as those based on “arbitrary” definitions.²⁹⁴ To the extent that empirically supported theory supports a fundamental measurement, fundamental measurement is preferable to fiat measurement, since many measurements in the social sciences (including accounting and auditing, and hence for many assurance services) measure certain observable properties (variables) related to a given concept without a confirmed theory to support this relationship.
- (417) One of the fundamental characteristics of measurement is the definition of the scale – that is, whether a nominal, ordinal, interval or ratio scale is appropriate.²⁹⁵ This is important because the nature of the evaluation that can be performed on the data depends on the nature of the scale applied.²⁹⁶
- (418) The theoretical foundations of measurement theory may also define further prerequisites for measurement depending upon the nature of the measurement or the underlying scale. For example, information, or at least the assertions embodied therein (called “sentences” in measurement theory) may need to be

²⁸⁹ V. Kam, pp. 505-506

²⁹⁰ D. R. Cooper and C.W. Emory, p. 147

²⁹¹ V. Kam, pp. 503-505

²⁹² J. Pfanzagl, pp. 31-32

²⁹³ V. Kam, p. 503

²⁹⁴ V. Kam, p. 504

²⁹⁵ J. Pfanzagl, pp. 28-29

²⁹⁶ V. Kam, pp. 500-502

testable and the relation being examined meaningful.²⁹⁷ However, an examination of the theoretical foundations of measurement theory goes beyond the scope of this Paper and ought to be the subject of investigation by measurement theorists rather than professional accountants, who are interested only in using the conclusions derived by the measurement theorists. Consequently, this Paper will limit further analysis, comparison and synthesis of measurement theory to the concepts discussed in the previous paragraphs.

- (419) **In conclusion, it appears that measurement theory has developed very sophisticated approaches for dealing with qualitative characteristics of measurements and the problems associated with measurement.**

8. THOUGHTS ON AN OVERALL SYNTHESIS OF MEASUREMENT, INFORMATION, ACCOUNTING AND ASSURANCE OR ATTESTATION THEORY

Issue: How can the information theory, accounting information, attestation and assurance standards, and measurement theory approaches be synthesised for the purposes of this Paper?

- (420) The analyses in the previous Section showed that there are significant differences in the definition of concepts used between information theory, accounting theory, assurance or attestation theory and measurement theory. In addition, there are different interpretations of accounting and assurance or attestation theory between the standard setters of the three major common law jurisdictions, but even where there are some similarities of approach and definitions, there are still some significant differences in these areas. As Smieliauskas pointed out, these international differences suggest that existing definitions need clarification.²⁹⁸ Moreover, Smieliauskas also recognises that such definitions – and in particular those relating to the terms “relevance” and “reliability” are controversial topics of philosophy.²⁹⁹ Consequently, any synthesis of the analyses performed in the previous Sections will need to be based not only on what is “theoretically correct” (although one might argue there is no such thing), but rather on what is useful for the purposes of assurance engagements.
- (421) In synthesizing the analyses in the previous Sections, the difference in the use of terms is less important than ensuring that all of the concepts required are included and that the relationship between the concepts is properly understood. Furthermore, any definitions of such concepts should be refined to the point

²⁹⁷ J. Pfanzagl, pp. 106-109, pp. 34-35

²⁹⁸ W.J. Smieliauskas, p. 45

²⁹⁹ W.J. Smieliauskas, p. 78

where the concepts are appropriately delineated from one another. Nevertheless, this does not mean that nomenclature is unimportant, since the difference between the common use of terms and their meaning as applied should be kept to a minimum. To the extent that the concepts used have definitions in general use, these ought to be used, but this does not preclude them from being refined.

- (422) The first issue relates to the nature of the various theories. Information theory appears to cover the value of information in terms of the requirements for the collection, transmission and receipt of information. Accounting theory appears to cover the value of information to users in terms of the requirements for its preparation, presentation, disclosure, transmission and receipt.
- (423) In contrast, assurance theory defines the characteristics of suitable criteria sometimes in terms of the required characteristics of the information produced by the application of the criteria (relevance, reliability and completeness) and sometimes in terms of the receipt of information by users (neutrality and understandability) produced by the application of these criteria, although the IAPC definition of relevance also included an aspect of the receipt of information by users. Attestation theory as originally promulgated by the AICPA, on the other hand, appears to define the reasonableness of the criteria in terms of the characteristics of the assertions generated by the criteria, whereas attest theory under the new AICPA standard defines the suitability of the criteria in terms of their required measurement characteristics (measurability), characteristics for evaluation (completeness), and in terms of the criteria themselves (objectivity and relevance). Measurement theory appears concerned with the value of the information that represents the results of the measurement process.
- (424) Overall, from a user perspective, the value of the information received is most important. This value, however, also depends upon the characteristics of the information transmitted, which in turn depend upon the characteristics of conclusions drawn from the information evaluated by the practitioner. Furthermore, the characteristics of the conclusions drawn by the practitioner depend upon the characteristics of the information collected by measurement and hence upon the characteristics of the information available and of the measurement process.
- (425) Ultimately, the characteristics of the information available and the nature of the measurement process that can be applied are dependent upon the characteristics of the particular subject matter being assessed and the criteria being applied. When defining the required characteristics of the elements of an assurance engagement, the characteristics of the value of the information received and of all of the other stages of the assurance process depend ultimately upon the characteristics of the subject matter, criteria, available evidence and engagement process. This implies that the characteristics of the

value of the information to the recipient user should encompass all of the characteristics required at each stage of the engagement process.

- (426) Another issue is which of the approaches (information theory, accounting information, attestation and assurance, measurement theory) analyzed in the previous Sections ought to form the basis for the analysis of the suitability of the elements of assurance engagements in this Paper. The answer to this question needs to be developed in the context of the most effective approach for assurance engagements. Since assurance engagements cover all possible subject matters upon which professional accountants may be asked to perform an assurance engagement, the most comprehensive of the approaches is likely to be the one representing the most appropriate basis.
- (427) The information theory approach would be difficult to use as a basis for assurance engagements since it is less concerned with measurement and evidence issues, which are central to the concerns of a professional accountant. The accounting information approach is comparatively more useful, since it covers measurement issues, but it does not cover evidential issues and some of its concepts do not appear to be suitable for nonaccounting information. For example, while there may be a trade off between relevance and reliability for certain kinds of accounting information, such a trade-off definitely does not exist for other kinds of information.
- (428) The assurance and attestation approach does cover evidential issues by addressing the required characteristics of criteria, but does not do so in a consistent manner (with the exception of the original attestation approach of the AICPA, which consistently addressed the required characteristics of the assertions generated by the application of the criteria).
- (429) Furthermore, neither the accountancy, the neither assurance nor attestation approaches address certain measurement issues that occur in the behavioural sciences. Adherence to codes of conduct and other behavioural subject matter are included in Part A of Chapter III as types of subject matter upon which a professional accountant may perform an assurance engagement. Consequently, when practitioners perform assurance engagements on such subject matter, they require the appropriate tools to determine whether the elements of the engagement are suitable for the performance of that engagement.
- (430) It is generally recognised that measurement theory as developed for the behavioural sciences has developed concepts for dealing with complex measurement issues not generally encountered in the natural sciences or in other fields of measurement.³⁰⁰ Based on this analysis, measurement theory, in particular as applied by the behavioural sciences appears to hold the most promise for a comprehensive conceptual framework that is appropriate for

³⁰⁰ J. Pfanzagl, p. 11

determining the suitability of the elements of an assurance engagement. Nevertheless, since some of the concepts applied in information theory, accounting information and assurance or attestation theory may not find complete counterparts in measurement theory, one should ensure that the concepts of measurement theory are adapted to the environment and, to some degree, to the language with which practitioners are comfortable. This, however, does not mean that the terminology used in measurement theory should be completely revised for the purposes of this Paper – only that it be adapted as necessary.

- (431) **In conclusion, measurement theory from the behavioural sciences as adjusted for the context in which accounting practitioners work appears to provide the most appropriate basis for the determination of the qualitative characteristics of information.**

9. THE OVERALL SYNTHESIS OF MEASUREMENT THEORY WITH THE OTHER APPROACHES

Issue: When is information suitable under the synthesis of measurement theory with other approaches?

- (432) For practitioners, the basis of suitability of information ultimately lies in the ethics requirements to which a practitioner is subject. The link between suitable information and ethics requirements is discussed in Part B Section 6 of this Chapter.
- (433) Measurement theory breaks the required characteristics of measurement down into two categories: a scientific requirement and an operational requirement, which are termed validity and practicality, respectively. The concept of validity, however, is very much centred on the particular subject matter being measured using the criteria in the engagement process and deals less with the conclusions being drawn and then expressed in a report by the practitioner. Furthermore, validity does not directly address the requirements of the recipient of the information, since in measurement theory the measurer and recipient may be the same person. While this issue is addressed in measurement theory under the characteristic of practicality using the concept of interpretability, strictly speaking, interpretability has less to do with just the measurement process itself than with the evaluation and reporting process and the receipt of information by the user in connection with user characteristics.
- (434) In other words, the fundamental issue is what makes information *valuable* to users (see Diagram 3). Only the information theory and the accounting information approaches (and the audit report criteria in the FEE study) address the basic requirement for information to be valuable to users: costs versus benefits. As Section 4 pointed out, information theory addresses this issue most

precisely, in that the information's *marginal benefits* must exceed its *marginal costs* (i.e., net *marginal benefits* make information *valuable* to users). The costs, of course, may not just be out-of-pocket financial outflows, but may also represent opportunity costs measured in other than monetary terms. The cost incurred in obtaining information is guided by the principle of *economy* (obtaining the desired *beneficial information* at minimum cost).

- (435) The *cost* of acquiring the desired information under the principle of *economy* results from the product of the *effort expended* to obtain that information and the *efficiency* of that effort (the cost per unit of effort). In an assurance engagement the effort expended by a practitioner in a particular engagement would depend upon the *resources available* to that practitioner (a constraint not unrelated to the price that users or responsible parties are willing to pay for that information) and the *effectiveness* of the effort in acquiring the desired information. The *effectiveness* of the effort expended to acquire the desired information in turn is dependent upon the *practicality* (after removing the concept of *interpretability*, which is subsumed under *understandability* in this Paper, *practicality* refers to the ease and speed with which procedures can be applied in relation to specific evidence) of the procedures applied and the *accessibility* (the degree to which evidence is susceptible to evidence gathering procedures) The *accessibility* of evidence relates to its *traceability* (the degree to which the practitioner can detect the evidence and its sources), *measurability* (the degree to which the practitioner can measure the information – see the following discussion on validity), and its *assessability* (the degree to which the practitioner can understand and evaluate the evidence for the purposes of the engagement – see the following discussion on understandability) by an expert party unrelated to the responsible party within a reasonable period of time.
- (436) The *efficiency of the effort* expended by the practitioner in an assurance engagement is determined by the *practitioner cost profile* (the cost associated with certain procedures performed in expending the effort for a particular practitioner) and the *convenience of that effort* (the ease with which these procedures can be performed in the circumstances of that particular engagement).
- (437) Often, however, the costs of assurance engagements to users are not transparent to them, since the users may have succeeded in exerting pressure so that the responsible party is obliged to bear the costs of providing the information (example: statutory audits of financial statements). This thought, however, does not address the economic issue of the incidence of the costs – that is, who ultimately bears the costs, since the responsible party (or even the users) may be in position to pass these costs on to other parties. The issue of incidence of costs goes beyond the scope of this Paper, since it is primarily an economic analysis, but it must be kept in mind when judging information based on its marginal benefits vs. *marginal costs* for a particular engagement.

- (438) However, although practitioners are directly concerned about their livelihood and hence the costs of such engagements to users or the responsible party (i.e., the prices that practitioners can charge for assurance engagements and the degree of preparation expected of the responsible party), these costs are usually measured in monetary terms of some sort (e.g., the fees charged plus expenses and the cost of any work that needs to be done by the responsible party so that the practitioner can perform the engagement). Consequently, the costs of the provision of information through an assurance engagement are somewhat determinable and the incremental costs for additional information are usually reasonably estimable and provide a useful surrogate for an estimate of marginal costs.
- (439) On the other hand, the *benefits* of the information provided by the assurance engagement are much more difficult to gauge. As was pointed out, such *marginal benefits* depend upon the situation of the user and on the characteristics of the information. This means that a conceptual framework for assurance engagements ought to include a characteristic of information required for it to benefit the user once received. Information theory deals with this requirement through the concepts of “appropriateness” (the relevance of the information to the users’ needs) and “clarity” (the degree to which information is free from ambiguity), whereas accounting theory speaks of “understandability” and “decision usefulness”, or “usefulness to users”.
- (440) In other words, for information to be *valuable*, its *marginal benefits* must exceed its *marginal costs*, and the *benefits* of the information appear to depend on two factors, which this Paper will term *usefulness* and *understandability*. *Usefulness* can be defined as the potential capacity of the contents of the information to bear on the purposes of the user. *Understandability* can be defined as the degree to which a user can perceive the significance of the information for his or her purposes. Under these definitions, information would have no *benefit* for a user unless it is both sufficiently *useful* and *understandable*. It should be pointed out that both the concepts *usefulness* and *understandability* reflect a combination of characteristics of the user and inherent to the information.
- (441) One of the determinants of *understandability* (see Diagram 4) is the *user profile* – that is, the level and nature of user understanding or prior knowledge. Furthermore, there is an assumption that users are prepared to study the information with reasonable *diligence* and have a reasonable level of *knowledge* of the subject matter, criteria and the nature of the engagement.
- (442) On the other hand, the *user profile* may also present problems to those engaged in measuring, presenting and reporting information. In particular, individuals may prefer limited rather than comprehensive information due to their threshold for *information overload*, which, if exceeded, may cause them to not perceive information as being significant even when it is so. In addition, individuals have different *thresholds* for *ambiguity* – sometimes information appropriately conveys ambiguity, but individuals may not feel comfortable with

that level of ambiguity and hence attribute greater certainty to the information than is warranted. Studies have also shown that individuals are poor natural statisticians – that is, they tend to base estimates and predictions on recent or available observations even though these may neither be representative of long-run conditions nor reflect objective probabilities (the *subjective probabilities problem*).³⁰¹

- (443) Individuals may apply a number of strategies to deal with such complexities in information, including *functional fixation* and *anchoring*. *Functional fixation* suggests that individuals apply symbols, aggregations or surrogates in making judgements such that these are assumed to maintain the same meaning over time, irrespective of changes in what they represent or in the way they are computed. *Anchoring* suggests that individuals tend to use new information to adjust old information and thereby fail to fully adjust for significance of the new information.³⁰²
- (444) A number of findings resulting from the effect of information on decision making include:
- irrelevant information added to an information set tends to decrease the performance of decision makers (*information overload*)
 - decision-makers tend to overemphasise highly correlated information (*correlation emphasis distortion*)
 - increased amounts of information tend to inhibit learning (*information overload*)
 - decision makers tend to overestimate the emphasis they place on minor cues (*cue emphasis distortion*)
 - decision makers rely more heavily on a few major variables than they believe they do (*oversimplification*).³⁰³
- (445) There are also other approaches to dealing with the way in which individuals process information, such as models that deal with human information processing (e.g., the lens model, Bayesian probabilistic judgment and the cognitive complexity/cognitive style models).³⁰⁴ However, a complete treatment of the behavioural aspects of information is beyond the scope of this Paper. Rather, it is important to recognise the limitations of users in their use of information.
- (446) The other determinant of *understandability* relates to the *profile of the information* (see Diagram 4) in terms of its inherent *comprehensibility*, which depends upon whether the information is:

³⁰¹ E.S. Hendriksen, pp. 106-107

³⁰² E.S. Hendricksen, pp. 107-109

³⁰³ E.S. Hendricksen, p. 110

³⁰⁴ E.S. Hendricksen, pp. 110-113

- *identifiable* (the degree to which users are able to identify the existence of the information),
- *delineatable* (the degree to which users are able to determine the boundaries of the information for a particular matter versus information about other matters
- *intelligible* (the degree to which the information is formally presented by means of *channels*, *media* and in *language* or *symbols* that potentially relevant users generally can be expected to understand),
- *clear* (the degree to which information is *unambiguous*, i.e., not subject to significantly different interpretation by potential users),
- *concise*: the degree to which the information as a whole is not so burdened with less important information or this less important information is not so emphasised that potential users may more easily perceive the significance of other more important information; conciseness can generally be achieved by means of
 - *discrimination*: being discriminating in the inclusion of information – that is, by not reporting clearly immaterial information,
 - *brevity* or *compactness*: ensuring that a given volume of information is in as brief and compact a form as possible without redundancy so that it does not overtax the attention span of the user
 - *level of detail*: by means of *aggregation* and *summarisation* of information, ensuring that only that level of detail of information that aids user understanding is included
 - *presentation*: ensuring that the information is appropriately *classified*, in the appropriate *order* by *nature* and *chronologically*, appropriately *organised*, and that more material information is reported or presented in a more prominent fashion than less material information- that is, *emphasis by importance*),
- *comprehensive* (the degree to which all of the information necessary for its being understood by potential users is included), and
- *interpretable* (the degree to which the potential meaning contained in the information can inherently be perceived).

Nevertheless, it should be recognised that the required *profile for information* cannot be completely segregated from the *user profile*, since the two are closely related.

- (447) Like *understandability*, the *usefulness* of information depends upon both the user and the nature of the information (see Diagram 5). On the one hand, a user must have particular *information needs* relating to the subject matter and, to the extent that there are multiple users, these may have different information needs. This suggests that the concept of *flexibility* of information in information theory (the usability of the information for more than one user) could be an important component of the determination of user needs.
- (448) There are those, such as Sterling, who would suggest that the *usefulness* of information depends upon whether the given attributes measured and hence contained in that information are specified by the decision model employed.³⁰⁵ This implies that those providing the information would need to know the variables and relationships employed by the models used by decision makers.³⁰⁶ In certain kinds of assurance engagements, this may be true, but for many kinds of assurance engagements, such as for audits of financial statements, the information to be specified in the financial statements may need to meet the needs of many different kinds of users that employ varying decisions models based upon the decisions for which the financial statements are being used. Consequently, for some kinds of assurance engagements, *flexibility* remains an important concept for determining *user needs*.
- (449) To be *useful*, the information must be capable of meeting at least some of *users' needs* to some degree: that is, the information must matter in terms of user needs. Information matters to user needs if it is *material* to these needs by being capable of influencing user judgement. Hence, *materiality* can be defined as the principle that information should be reported to users if it is at least probable that, in light of the surrounding circumstances, the judgement of a reasonable person using this information would be influenced by its being reported. In addition, *materiality* also encompasses the principle that information reported to users should be free of misstatement if, in light of the surrounding circumstances, it is at least probable that the judgement of a reasonable person using this misstated information would be influenced by the magnitude of such misstatement. Negatively and more precisely stated, an omission of reported information or the magnitude of a misstatement of reported information is *material* if, in light of the surrounding circumstances, it is at least probable that the judgement of a reasonable person using the information would have been influenced by that omission or misstatement.
- (450) Used in this sense *materiality* reflects both a qualitative characteristic (what needs and does not need to be reported: i.e., required inclusions vs. omissions allowed) and a quantitative characteristic (how precise and accurately information needs to be reported: i.e., the permissible magnitude of misstatements for included information). The *materiality* principle also implies

³⁰⁵ See V. Kam, p. 535, footnote 49.

³⁰⁶ R.G. Schroeder and M.W. Clark, pp. 37-39.

that all potentially material information needs to be measured and reported. In other words, the *materiality* principle represents an implicit requirement based upon the threshold set for materiality. Furthermore, under the principle of materiality, clearly immaterial information *need* not be reported. That clearly immaterial information *should* not be reported is a function of the *understandability* requirement in relation to the *user profile (information overload)* and the *information profile (conciseness)*.

- (451) Whether particular information is *material* or not, then, depends upon the capacity of that information to influence users given their information needs and all such information that has the capacity to influence users must be reported. In addition, material information reported to users needs to be free of material misstatement.
- (452) *Materiality* considerations play a role in what needs to be reported and hence in what needs to be measured that is then reported (the qualitative aspect); likewise, *materiality* considerations play a role in how accurate and precise reported information and hence its measurement need to be (the quantitative aspect) Therefore, *materiality* is also a concept that relates not only to what is reported to users and how, but also relates to the measurement process applied by the responsible party and hence the practitioner.
- (453) Since *materiality* relates to both measurement and the reporting of measurement, and is defined in terms of the capacity to influence users, there is a question as to whether *materiality* in an assurance engagement is different from *materiality* in other contexts (e.g., is auditing *materiality* the same as or different from accounting *materiality*). There does appear to be a widely accepted notion that there is no difference between accounting and auditing *materiality*.³⁰⁷ Since both accounting and auditing *materiality* are generally defined in terms of user requirements³⁰⁸, this position appears logically supportable.
- (454) However, it also implies that then there is in fact no such thing as auditing *materiality*, for accounting (the financial statements) can exist independently of whether or not it is audited, whereas an audit can only exist when the subject matter being audited (the accounting as reflected in the financial statements) also exists. Consequently, while *materiality* is a concept that is central to the measurement and reporting involved in an assurance engagement, *materiality* relates to user needs in connection with particular subject matter independently of whether or not an assurance engagement will be carried out. This position is consistent with recent research literature on assurance and audits.³⁰⁹ However,

³⁰⁷ W.J. Smieliauskas, p. 138

³⁰⁸ See the treatment of accounting materiality in Sections 3 and 5 and the treatment of auditing materiality in IFAC 2001, ISA 320.03; AICPA 2001, AU §312.10; CICA 2001, *Handbook Vol. I*, Section 5130.05 and APB 2002, *Auditing and Reporting*, SAS 220.03

³⁰⁹ See D.A. Leslie, pp. 7-10

it should be recognised that by including materiality within their accounting frameworks, accounting standards setters have also made materiality a criterion by which financial statements (the subject matter) are evaluated in a financial statement audit.

- (455) However, it should be recognised that information that is not *available* regardless of 1. the effort made to measure and report it, 2. its potential *materiality* and 3. the needs of users, cannot be *useful*. The concept of *availability* should be distinguished from the concept of *accessibility*, which ties into the concept of effectiveness of practitioner effort in an assurance engagement (see the discussion on the *cost of information* above). *Accessibility* represents a continuum, depending upon the *traceability*, *measurability* and *assessability* of the evidence representing the information, that ultimately may be reflected in the cost of the engagement or in obtaining the information. Even though in part the same factors apply (*traceability*, *measurability* and *assessability*), *availability*, on the other hand, represents a dichotomy rather than a continuum where regardless of the effort applied by the practitioner or user, the information necessary cannot be obtained. Furthermore, *availability* also depends upon the *existence* of the information or evidence and the *practicability* of available procedures (i.e., are they possible) to acquire that evidence or information. Nevertheless, in some circumstances other supporting information may be available, which may act as a substitute for the information desired. Therefore, on the whole, *availability* refers whether the information necessary can be acquired.
- (456) Hence, the *usefulness* of information depends upon *user information needs*, the *materiality* of the information and its *availability*. It was noted that *material* information has the capacity to influence users. This capacity depends upon the following factors: *timeliness*, *comparability* and *validity*. *Timeliness* refers to the measurement and reporting of information to users at a time or over time such that the information does not lose its capacity to influence those users. In other words, if otherwise material information reaches users after it has lost its capacity to influence them, then such information cannot be considered material. *Timeliness* means ensuring that the information is conveyed to users at the *time required* (i.e., not too soon or too late). This in part depends upon *time elapse* – that is, the time required to identify, measure, evaluate and report that information to the user after the event giving rise to the information has occurred.
- (457) Another aspect of materiality is *comparability*, which refers to the degree to which particular information is *comparable* with *competing* or *corroborating* information. While, strictly speaking, *comparability* is an attribute of information that makes it *useful* to users, *comparability* is also subject to *materiality* requirements, for these requirements determine the degree to which such *comparability* is required, and in many cases information that is not *comparable* with *competing* or *corroborating* information may not be *material* (i.e., will not be

capable of influencing users). Consequently, comparability is an aspect of materiality. One component of *comparability* is *consistency*, which refers to the *comparability* of information with *competing* or *corroborating* information over time. In those cases where information is not perfectly *comparable* and this is not directly obvious from the information as presented, it is important that those differences leading to the material impairment of *comparability* be *disclosed*.

(458) The third factor affecting *materiality* is the *validity* of the information (See Diagram 6). As adapted to measurement and reporting in an assurance engagement environment, *validity* can be defined as the extent to which information measures and communicates what one actually desires to measure and communicate (or the degree to which one measures or communicates what is being desired). *Validity* relates to the *validity* of the content of the information reported (*information validity*), which in turn depends upon the *validity of the measurement or engagement process*. *Information validity* comprises three types of *validity* that are predicated upon *information reliability*:

- *content validity*: the degree to which the content of the information adequately represents the universe of all items associated with the subject matter; content validity requires
 - *representativeness* of the information, when applying *inductive* approaches, and
 - *representational faithfulness* of the information (i.e., the represents what it purports to represent, including any representations with respect to the information's supposed reliability)
 - *completeness* of the information (i.e., no material components or aspects of the information are omitted)
 - *quantifiability* of information (i.e., the degree to which information can be formally presented in terms of its logical – not numerical – quantifiability)
- *criterion-related validity*: the degree to which information is useful in predicting or confirming a criterion (events or conditions); there are three kinds of criterion validity:
 - *concurrent criterion-related validity*: the degree to which information is useful for predicting concurrent criteria (events and conditions that could be measured concurrently)
 - *future criterion-related validity*: the degree to which information is useful for predicting criteria measured in the future (future events or conditions)

- *confirmatory criterion-related validity*: the degree to which information is useful in confirming past criteria (events or conditions that occurred in the past)
 - *duration*: refers to the time factor in determining *criterion-related validity of information*; factors to consider in relation to *duration* include:
 - *currency*, which refers to the information being sufficiently up-to-date to allow the criterion to be predicted or confirmed
 - *expiry disclosure*: in many cases, it is known in advance that information may no longer be current if certain subsequent events occur or due to the passage of time; hence in these cases without explicit disclosure within the information of its limitations the information may not be valid
 - *construct validity*: the degree to which the information is supported by certain observable events or conditions implied by the construct applied
 - *reliability*: the accuracy and precision of information, each of which can be defined as follows:
 - *accuracy*: the degree to which bias is absent from the information (i.e., the lack of systematic variance, or error, which is defined as the variation in information due to some known or unknown influences that cause results to tend in one direction more than another)
 - *precision*: the degree to which the random errors remain in the information after having adjusted for systematic variance; for numerically described quantitative information, precision comprises:
 - *significance*: the number of significant digits in a number (with the last digit representing that part of the number still subject to a degree of unsystematic error or tolerance)
 - *tolerance*: the degree to which the last significant digit is subject to unsystematic error
- (459) While the previous description of *validity of information* in part addresses *validity* issues associated with the *reporting of information*, it does not, however, address the *validity* issues associated with *measurement of information*, which is a prerequisite for the *valid reporting* of and hence *valid content of information*.

Validity with respect to the *measurement and reporting of information* (i.e., the engagement process) encompasses:

- *content validity*: pertains to inferences *about measurement or reporting construction* rather than inferences about measurement or reporting results – that is, the *appropriateness of the measurement or reporting constructions or instruments (set of measurement or reporting operations)* to meet the purposes for which they are being used; it in part depends upon the degree to which information can be measured and reported in terms of its *logical quantifiability*
- *criterion-related validity*: the degree to which a *predictor* measured or reported is useful in predicting or confirming a *criterion* (events or conditions); in this case the *validity criterion* must be valid itself, i.e. the *criterion* should defined and described in terms judged to be proper measures of the attribute or property in question and must be *reliable*
- *construct validity*: identification of the underlying constructs being measured or reported and a determination of how well the measurement or communication represents them – i.e., do the *observable relations* being measured or reported (*the set of operations*) adequately represent the *construct (an abstract variable constructed to represent important attributes or properties)* that embodies certain *theorems* about these observable relations that can be tested empirically; in other words the construct validity of a measurement or reporting operation relates to the *empirical evidence* in support of the measure or communication in relation to certain observable events or conditions implied by the construct
- *reliability* (see Diagram 7): the *accuracy and precision* of measurement or reporting procedures; *measurement and reporting reliability* encompasses the following concepts:
 - *stability*: the degree to which consistent results are achieved with repeated measurements or communications of the same subject matter with (a) *the same instrument over time* or (b) *under different conditions*, or *the consistency of the measurement or reporting operation*
 - *equivalence*: the degree to which alternative forms of the same measure or communication (due to *different measurers or reporting parties*, or to *variations in the sample of items chosen* for the measurement or reporting) produce the same or similar results
 - *internal consistency*: degree to which instrument items are homogeneous and reflect the same underlying constructs

- *accuracy*: the degree to which *bias is absent* from the measurement or reporting process (i.e., *the lack of systematic variance, or error*, which is defined as the variation in the measurement or communication due to some known or unknown influences that cause results to *tend in one direction* more than another or *towards predetermined results*)
- *precision*: the degree to which the *random fluctuations* in the measurement or reporting process (*error*) remain after having adjusted for systematic variance; these may be caused by the *imprecision of the operation, lack of information, misinformation, miscalculation*, etc.; for the measurement or communication of numerically described quantitative information, precision comprises:
 - *significance*: the number of significant digits in a number (with the last digit representing that part of the number still subject to a degree of unsystematic error or tolerance) allowed by the measurement or reporting process;
 - *tolerance*: the degree to which the last significant digit is subject to unsystematic error under the measurement or reporting process
- *refinement*: the degree to which a measurement or reporting operation has been made precise and accurate through model development tested against empirical observation
- *security*: a prerequisite for the measurement and reporting of accurate and precise information is adequate security over that information; adequate security covers:
 - *integrity* (data and information are protected against inadvertent corruption or unauthorised modification or manipulation, either through inalterability, whereby no information can be changed such that its original content can no longer be identified, or through logs, whereby the changes to the original information or data are recorded)
 - *confidentiality* (data and information is protected against inadvertent or intentional disclosure to parties not authorised to receive that information or data – this is of particular importance where the disclosure of the data or information could have an

impact upon its currency through the reaction of the recipients)

- *authenticity* (there are means by which authentic data and information can be distinguished from non-authentic data and information)
 - *authorisation* (only those persons so authorised have access to particular information or data, whether in terms of reading, modification or reporting)
 - *non-repudiation* (the measurement and reporting of information or data bring about the desired legal consequences with binding effect)
- *sources of error*: the following sources of error may lead to *inaccuracy or imprecision*:
- *vagueness* (attribute or property being measured or communicated not clearly defined)
 - *measurer errors* (*intentional bias, unintentional errors, misinterpretation of measurement or reporting operation, use of improper channels, media, or languages or symbols*)
 - *instrument errors* (defective or flawed instrument for measurement or reporting)
 - *imprecise measurement operation* (*vague or ambiguous rules of measurement or reporting subject to varying interpretation, environmental factors affecting the measurement or reporting operation, or time elapse*)
 - *respondent error* (errors resulting from the behaviour or respondents when behaviour of individuals or groups of individuals is being measured)

(460) The *validity* of the *scale* applied (nominal, ordinal, interval or ratio) also determines the validity of information and the engagement process used to produce and report that information. With the exception of *security and sources of error*, for both *information and process validity*, the *reliability* factors represent the requirements for *measurability*. The *security* concept represents a prerequisite for appropriate *measurement and reporting*. The *sources of error* represent limitations on *measurability*.

(461) The following diagrams provide a rough depiction of the interrelationship between the various concepts discussed in this Section:

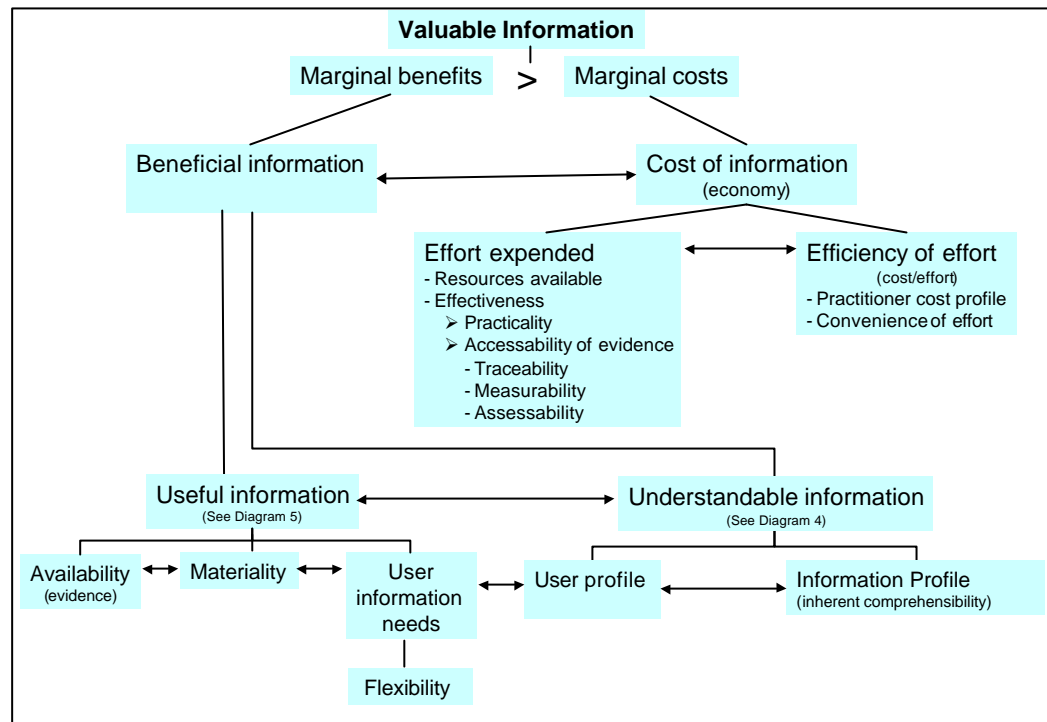


Diagram 3

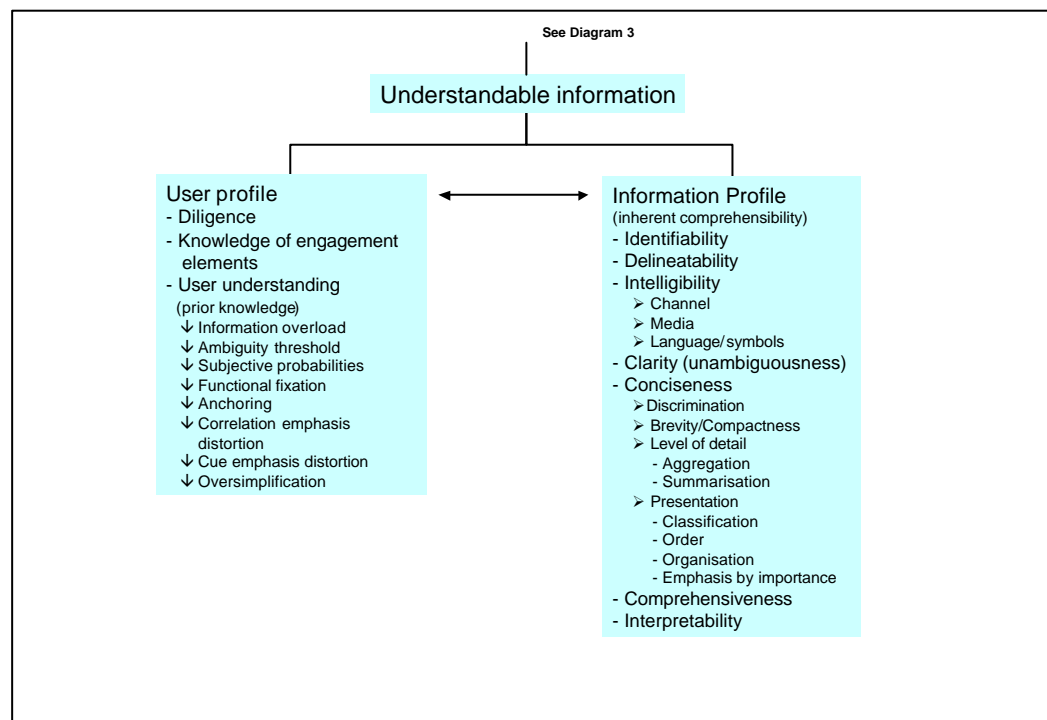


Diagram 4

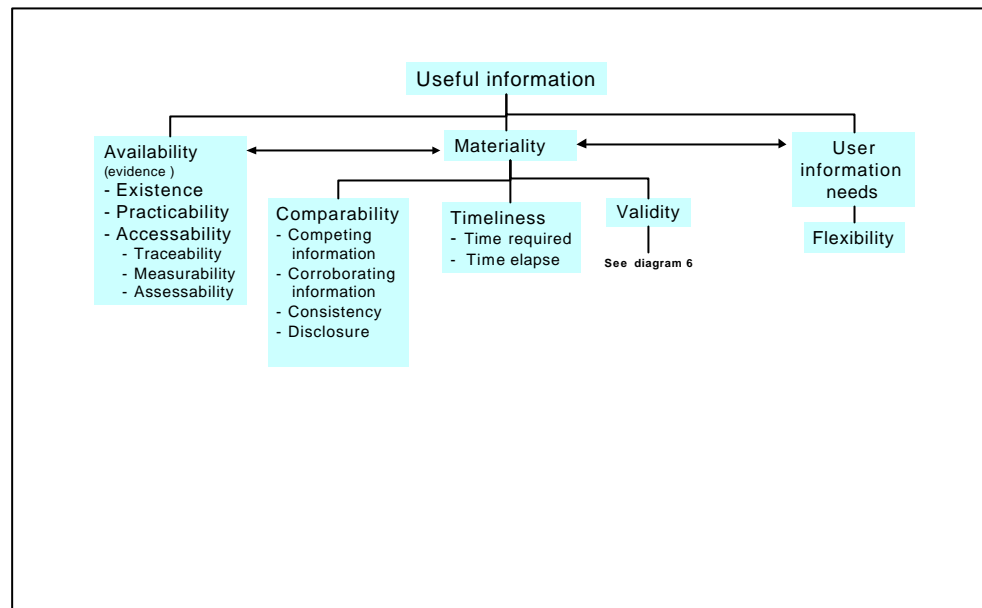


Diagram 5

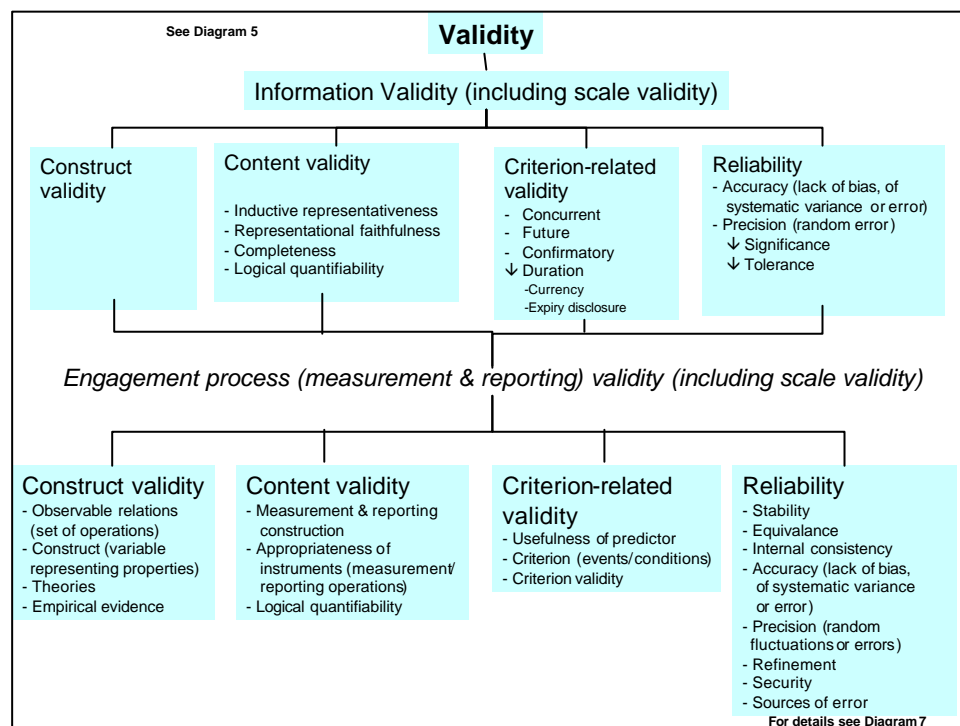


Diagram 6

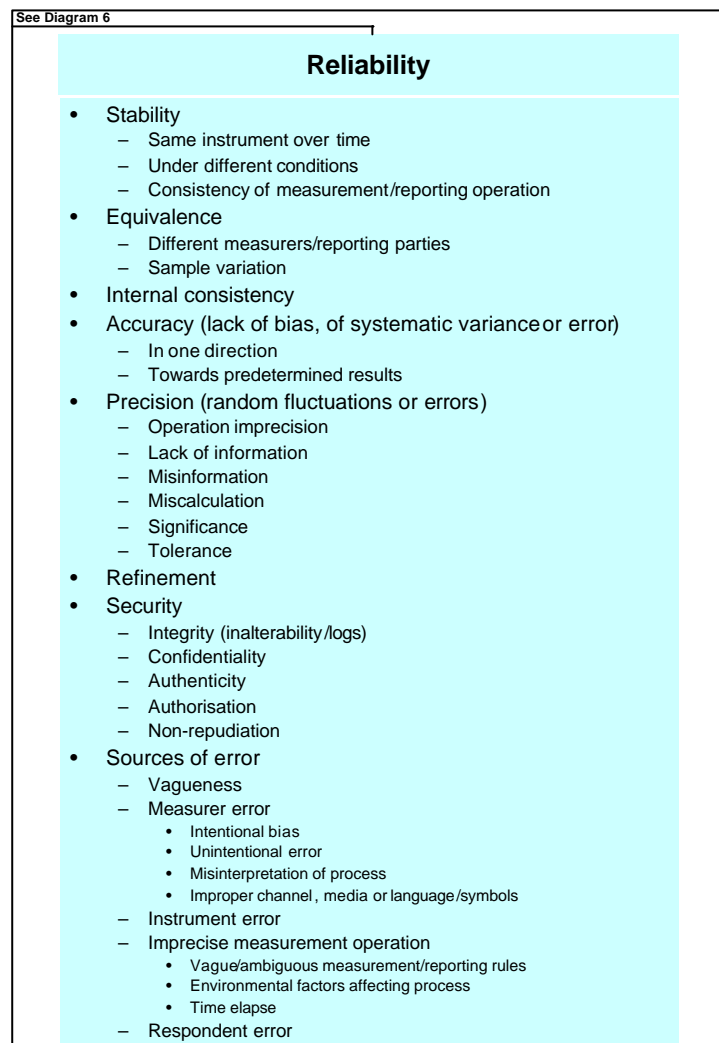


Diagram 7

(462) The double-sided arrows in the previous diagrams signify an interaction between the concepts that implies that the concepts cannot be considered in isolation from one another. Purists might argue that *information validity* is just an expression of *measurement and reporting validity*. As Jum Nunnally states, “strictly speaking, one validates not a measuring instrument but rather some use to which the instrument is put.”³¹⁰ In other words, the *validity of the process* is of concern rather than the *validity of the results*. This is true, but professional accountants are ultimately concerned about the results – that is, the *usefulness* of the information in itself to users. Consequently, for practical purposes practitioners may also look to the *validity of the results* due to the *validity of the process*.

³¹⁰ V. Kam, p. 133, footnote 51: with reference to:
Jum Nunnally, Introduction to Psychological Measurement (McGraw-Hill, 1970), p. 133

- (463) This Section provided a treatment of the meaning of *reliability* – both *information reliability* and *process reliability* – in relation to the other concepts. The concept of *reliability* is often confused with the concept of *credibility*. The previous Chapter defined *credibility* in terms of the assurance attributed by the user of a practitioner's opinion or conclusion on the subject matter. In this sense, the *reliability of information* relates to its *accuracy and precision*, whereas the *credibility of information* relates to the degree to which the user perceives it likely that the information is as *reliable* as needed or as *reliable* as it purports to be.
- (464) **In conclusion, it appears that the suitability of information (and the processes used to measure and report that information) depends upon whether or not that information is valuable as defined in this Section. As was noted in the first Section of this Part, one judges the suitability of the elements of an assurance engagement (subject matter, criteria, evidence and engagement process) based upon the information about these. Hence, the suitability of the elements of an assurance engagement depends upon their being valuable to the user of the information about them.**
- (465) The following Parts of this Chapter will examine the nature of these elements, how they interact in an assurance engagement, and the requirements for their suitability.

B. SUBJECT MATTER

Issue: What is the nature of subject matter and what is the nature of its relationship with the other elements of an assurance engagement?

1. DEFINITION OF SUBJECT MATTER

Issue: How can subject matter be defined?

- (466) The dictionary definition of “subject matter” is “That which is under consideration, discussion or study; the subject of thought”.³¹¹ A law dictionary definition is “The issue presented for consideration; the thing in which a right or duty has been asserted; the thing in dispute”.³¹² The legal definition, is of course, directed towards legal issues and is hence not necessarily useful for defining the subject matter of an assurance engagement. Certainly, from both definitions, one can glean the thought that subject matter of an assurance engagement ought to be that which is subject to that engagement. There is the question, of course, as to what exactly that means.
- (467) Aside from mentioning, that in an assurance engagement, the subject matter is evaluated or measured against suitable criteria³¹³, and that it may take many forms, ISA 100 does not define what subject matter is. However, ISA 100 does point out that subject matter may be presented as at a point in time or covering a period of time.³¹⁴ AT §100 of the AICPA, which was replaced by AT §101, dealt with assertions rather than subject matter.³¹⁵ AT §101, on the other hand, essentially uses the ISA description of subject matter.³¹⁶ CICA Handbook Section 5025 does apply the concept of subject matter, but does not define it.³¹⁷
- (468) Strictly speaking, subject matter is any specific matter being subjected to measurement or evaluation by means of the criteria applied in the assurance engagement process and upon which the practitioner expresses to the user a conclusion or opinion with a certain level of assurance obtained to support that conclusion or opinion. This definition contains the essential elements differentiating an assurance engagement from agreed-upon procedures engagements and is sufficiently broad to include any conceivable subject matter upon which a practitioner may be asked to report. However, to prevent

³¹¹ *Funk & Wagnalls Canadian College Dictionary*, 1989, p. 1333.

³¹² Garner et al., *Black's Law Dictionary*, Seventh Edition, p. 1438.

³¹³ IFAC 2001, ISA 100.04

³¹⁴ IFAC 2001, ISA 100.20

³¹⁵ AICPA 2001, AT § 100.01

³¹⁶ AICPA 2001, AT §101.07

³¹⁷ CICA 2001, *Handbook Vol. I*, Section 5025

circularity in this definition, the metaphysical use of the term “entity” (anything that could exist)³¹⁸ to describe the specific matter may be applied.

- (469) **In conclusion, for an assurance engagement, subject matter is any specific matter (an entity) subjected to measurement or evaluation based on the criteria applied in the assurance engagement process and upon which the practitioner expresses to the user a conclusion or opinion with a certain level of assurance obtained to support that conclusion or opinion.**

2. THE NATURE OF SUBJECT MATTER

Issue: What is the nature of subject matter and its structure?

- (470) The measurement of subject matter is inextricably linked to what is measured in relation to that subject matter: its properties, qualities or attributes. Since in metaphysics, the use of the term properties often has a very specific meaning and these are often – not without controversy – classified as universals, as opposed to particulars, together with relations in ontological categorisation³¹⁹, some metaphysicians tend to use the more neutral term “qualities” to describe qualitative change associated with entities.³²⁰ Nevertheless, the term properties is also often used to denote both properties and relations by referring to intrinsic and relational properties.³²¹
- (471) Torgerson used the term “attribute” to denote a measurable property,³²² but Pfanzagl suggests that this distinction between properties in general and measurable properties does not appear to be necessary.³²³ Modern textbooks that provide a treatment of measurement theory refer to properties rather than to attributes;³²⁴ consequently, this Paper will use the term “properties” when referring to what is measured in relation to subject matter.
- (472) Properties are generally defined as the characteristics of objects³²⁵ (e.g., the colour of an automobile). Pfanzagl states that properties exist only in connection with empirical objects;³²⁶ Torgerson notes that whenever a property is defined or described, it is a property of something. While Pfanzagl and other measurement theorists generally appear to speak of properties of “objects”, Torgerson speaks of properties as being aspects of characteristics of “systems” and that one might

³¹⁸ E.J. Lowe, p. 15

³¹⁹ E.J. Lowe, pp. 15-16

³²⁰ E.J. Lowe, pp. 41-42, 44-46

³²¹ E.J. Lowe, p. 44

³²² W.S. Torgerson, p. 26

³²³ J. Pfanzagl, p. 15

³²⁴ D.R. Cooper and C.W. Emory, p. 142

³²⁵ D.R. Cooper and C.W. Emory, p. 142

³²⁶ J. Pfanzagl, p. 15

define a particular system as roughly that which possesses particular properties (although he uses the term “object” to refer to a system).³²⁷ Torgerson’s assertion is not uncontroversial, since it is metaphysically associated with both essentialism and realism, the implications of which the Paper will briefly subsequently in this Part.³²⁸

- (473) Nevertheless, as Torgerson points out, properties are essentially the observable aspects or characteristics of the empirical world and that hence measurement is always measurement of a property and never measurement of a system: it is always the properties that are measured and not the systems.³²⁹ Likewise, Pfanzagl states that the subjects of measurement are properties.³³⁰ Scientists, and in particular behavioural scientists, refine this further by maintaining that in fact it is indicants (operationally defined constructs³³¹) of properties that are measured – not the properties themselves³³² (e.g., the results of an aptitude test to measure intelligence). Indicans are used as an index to describe the properties being measured, under the assumption that at best these indicants are presumed to be monotonically related to the properties (or concepts representing them), or at worst merely a positive correlation between indicants and properties of unknown magnitude is presumed to exist.³³³
- (474) Since this Paper addresses objects or systems that are subject to an assurance engagement, this Paper will use the term “subject matter” to mean the object or system that bears the properties that are being subjected to measurement in the assurance engagement. When measuring properties of subject matter or the indicants thereof, the measurer intends to obtain measurement outcomes. Torgerson refers to the possible measurement outcomes as the “continuum of points”, of which “magnitude” is the point on the continuum resulting from the measurement.³³⁴ Pfanzagl avoids the use of these terms and prefers to apply the term “manifestations” (e.g., blue, green, red, etc. are manifestations of the property “colour”) for the possible measurement outcomes or actual measurement outcome because it is not generally true that there is a large and connected set of manifestations for every given property.³³⁵
- (475) It should be recognised that, in determining the manifestation of a property by measuring that property, every property has a distinct structure – that is, the structure is determined by the empirical relations between empirical measurements of properties of different subject matter. Pfanzagl defines

³²⁷ W.S. Torgerson, p.9

³²⁸ E.J. Lowe, pp. 96-114, 347-361

³²⁹ W.S. Torgerson, pp. 9 and 25

³³⁰ J. Pfanzagl, p. 15

³³¹ W.S. Torgerson, p. 7

³³² D.R. Cooper and C.W. Emory, p. 142

³³³ W.S. Torgerson, p. 7

³³⁴ W.S. Torgerson, p. 26

³³⁵ J. Pfanzagl, p. 15

empirical relations to be “statements of subjects on subjective relations between empirical objects” and provides an example using the object (or subject matter) “tone”. A tone may have various properties, including loudness, pitch and timbre. A simple empirical relation between two tones is the statement about which one of the two tones is of higher pitch. Of course, some properties have more complex structures than others do.³³⁶

- (476) Unlike Torgerson, who excludes classification³³⁷ (the identification of instances) and hence nominal scales from the term “measurement”,³³⁸ Pfanzagl accepts the application of nominal scales as representing a measurement (and points out that they serve to distinguish between equivalence classes),³³⁹ as do other measurement theorists.³⁴⁰ As will be discussed further in this Paper, most engagements that accountants are asked to perform are actually primarily classificatory in nature, even when quantitative aspects result from the application of these classifications (e.g., the decision whether to expense or capitalise, whether the financial statements are fairly stated or not, or whether to recognise revenue or not). Consequently, classificatory property concepts and hence a measurement concept that includes nominal scales is important for this Paper and will therefore be used.
- (477) The process of predication (e.g., x is a cat, y is blue, etc.), which essentially represents property ascription, since every meaningful predicate expresses an existing property,³⁴¹ is inextricably bound to the concept of classification noted above and hence to the logical concept of “classes”. Fundamental to the concept of classes is the principle of abstraction, which states that every monadic (a general absolute term, whether as a noun or adjective, e.g., “house” or “blue”) predicate has a class as extension, which in turn leads to the axiom of extensionality, which states that any classes that have the same members are identical in the sense of belonging to the same classes.³⁴²
- (478) Practically speaking, these concepts imply that property ascription is a classification exercise (or conversely, that classification represents property ascription) – that is, classes are defined by the extension of the predicate representing at least one or more properties (or manifestations thereof). In short: properties (or manifestations thereof) of subject matter define the class(s) to which a particular subject matter belongs. Without subscribing to metaphysical realism (under which particulars are reduced to bundles of universals – that is bundles of properties or relations; this is a very controversial

³³⁶ J. Pfanzagl, pp. 15-16

³³⁷ W.S. Torgerson, p. 10

³³⁸ W.S. Torgerson, pp. 14 and 16

³³⁹ J. Pfanzagl, pp. 28 and 74-76

³⁴⁰ D.R. Cooper and C.W. Emory, pp. 143-144

³⁴¹ E.J. Lowe, pp. 48, 100 and 353-355

³⁴² W.V. Quine, pp. 79 and 251

area of metaphysics)³⁴³, or to metaphysical nominalism (under which universals are reduced to particulars by means of resemblance classes or tropes – which is also not uncontroversial),³⁴⁴ it follows that the very identification of subject matter (e.g., the subject matter in question is a cat) involves predication and is hence an exercise in classification and property ascription.

- (479) The classification of subject matter so that it can be identified is closely related to the concept of essentialism, which, without applying the possible worlds concept, can be defined as the view that there are essential properties with which one can classify and hence define or identify specific subject matter. An essential property of particular subject matter, then, is a property which a subject matter must always possess and which it cannot cease to possess without thereby ceasing to exist³⁴⁵ (or at least, without being classified as another kind of subject matter). Under this view, the identification of subject matter – that is, its classification as belonging to a particular class of subject matter – depends on whether that subject matter bears the properties (and manifestations thereof) deemed essential to that class.
- (480) On the other hand, specific members within a class of subject matter can be differentiated by reference to their so-called accidental properties³⁴⁶, which represent the properties borne by specific subject matter not essential to the class of subject matter in question. The accidental properties, then, serve to identify the specific subject matter forming the members of that class as defined by its concomitant essential properties. This Paper will not address the related metaphysical problem of the identity of indiscernables (the view that no two specific subject matter can possess exactly the same properties) associated with identifying subject matter by the properties that they possess³⁴⁷, since this is not a problem that professional accountants will have to address in practice.
- (481) The properties and manifestations thereof that are deemed essential to membership in a particular class of subject matter in effect represent the *criteria* that determine membership in that particular class of subject matter, whereas accidental properties and manifestations thereof borne by specific subject matter serve only to differentiate specific subject matter within that class. Hence, property ascription to classes of subject matter defines the membership criteria for those classes. As a result, property ascription to classes of subject matter represents the link between criteria and classes of subject matter. In this sense, the application of the criteria to measure or evaluate the subject matter in an assurance engagement represents a classification exercise, in which the

³⁴³ E.J. Lowe, pp. 360-361

³⁴⁴ E.J. Lowe, pp. 352-362

³⁴⁵ E.J. Lowe, p. 96

³⁴⁶ E.J. Lowe, p. 96-97

³⁴⁷ E.J. Lowe, pp. 62 and 360-361

practitioner determines whether the subject matter possesses the essential properties (the criteria) for membership in the class in question.

- (482) There are, of course, arguments that some kinds of assurance engagements may not represent classification exercises. Notably these arguments are usually made in connection with so-called “value-for-money audits”, in which the economy, efficiency or effectiveness of certain activities are investigated and the practitioner performs the measurements directly, i.e., is not engaged in remeasurement or testing of measurements taken by the responsible party. However, even in these kinds of audits, criteria for evaluating economy, efficiency and effectiveness need to be developed and applied. The question is whether the application of these criteria leads to a classification of the subject matter. Strictly speaking, once values for economy, efficiency or effectiveness have been determined by applying the criteria, the subject matter has been classified as having a certain degree of economy, efficiency or effectiveness as opposed to alternative degrees of these. On this basis, “value-for-money audits” could also be viewed as classification exercises.
- (483) On the other hand, Chapter III Part B Section 4 of this Paper does note the ethical difficulties associated with engagements in which the practitioner engages in measurement rather than remeasurement. Value-for-money audits, by definition, usually involve original measurements by the practitioner and the expression of assurance by the practitioner with respect to these measurements. In this sense, whether or not value-for-money engagements ought to be classified as assurance engagements is an issue that requires further deliberation and research.
- (484) **In conclusion, in an assurance engagement the practitioner measures and evaluates the indicants of properties possessed by subject matter and uses the manifested outcomes of these measurements to determine whether the subject matter possesses those properties and manifestations thereof predicated by those properties essential to being a member of a particular class of subject matter. The essential properties ascribed to a class of subject matter represent the criteria for membership in that class. Hence, property ascription to classes of subject matter represents the link between criteria and classes of subject matter. In this sense, the application of the criteria to measure or evaluate the subject matter in an assurance engagement represents a *classification exercise*, in which the practitioner determines whether the subject matter possesses the essential properties (the criteria) for membership in the class in question. Accidental properties of specific subject matter within a particular class allow the differentiation among specific subject matter within that class. Whether or not value-for-money engagements qualify as assurance engagements in this sense is an issue that requires further deliberation and research.**

3. THE APPLICATION OF MEASUREMENT THEORY TO ACTUAL SUBJECT MATTER IN ASSURANCE ENGAGEMENTS

Issue: How can the insights reached through the application of metaphysical argument and measurement theory be applied to actual subject matter in assurance engagements?

- (485) The rather abstract arguments above can be clarified by applying them to the classic assurance engagement: the audit of financial statements. In an audit of financial statements, the auditor first identifies a particular object as being a financial statement (e.g., “x is a financial statement”, or, to put it in a logically more rigorous fashion, “there is a class a of financial statements and there is an object x such that the object x is a member of the class financial statements a”) subject to the assurance engagement known as a financial statement audit. Under the presumption that the decision had been that the ISA would represent the applicable standards for the engagement process, the objective of an audit of financial statements is to enable the auditor to express an opinion whether the financial statements are prepared, in all material respects, in accordance with the identified financial reporting framework.³⁴⁸ In an audit pursuant to the ISA, the auditor’s report states the auditor’s opinion as to whether the financial statements give a true and fair view (or are presented fairly, in all material respects) in accordance with the financial reporting framework and, where appropriate, whether the financial statements comply with statutory requirements.³⁴⁹
- (486) In these circumstances and if the identified financial reporting framework are the International Accounting Standards (IAS) and there are no statutory requirements with which the financial statements must comply, the auditor needs to determine whether the financial statements are prepared, in all material respects, in accordance with the IAS. The auditor would need to be able to issue an opinion as to whether the financial statements present fairly the financial position, financial performance and cash flows of an enterprise in accordance with the IAS.³⁵⁰ From a logical point of view, the requirements of the engagement should be subsumed into the constructs of an assurance engagement under measurement theory and metaphysical argument as noted in the following paragraph.
- (487) Subject matter of the assurance engagement is the set of financial statements subject to audit. The overall property of the financial statements being measured is their “presentation” of the financial position, financial performance and cash flows of the enterprise. The measurement outcome being sought by the auditor is whether this presentation of the financial statements manifests itself as being fair as opposed to not being fair. Indicant of fairness is

³⁴⁸ IFAC 2001, ISA 200.02

³⁴⁹ IFAC 2001, ISA 700.17

³⁵⁰ IASB 2002, IAS 1.10

compliance with the requirements of the IAS. It should be noted that, under the IAS, the indicant compliance with the requirements of the IAS is considered to be monotonically related to fairness except for the extremely rare circumstances noted in IAS 1.13³⁵¹ (the override provision). The auditor determines whether the financial statements possess the essential properties predicated by compliance with the requirements of the IAS. In effect the IAS then represent the criteria applied to determine whether these specific financial statements are a member of that class of financial statements that fairly state the financial position, financial performance and cash flows in accordance with the IAS.

- (488) An example of another assurance engagement would serve to clarify further the nature of assurance engagements from a logical perspective: an assurance engagement pursuant to ISA 100 on environmental information in an environmental report. Subject matter would be the environmental information subject to the assurance engagement. At this stage, some presumptions are necessary about the nature of the environmental information in question, since there are varying kinds of such information. If one presumes that the environmental information describes environmental events and conditions, then the presentation of these events and conditions would be the overall property being measured.
- (489) Furthermore, it might be presumed that users of this information have an interest in the information not being materially misstated. In these circumstances, the measurement outcome that is being sought by the practitioner is whether the environmental information manifests itself as being free of material misstatement or not. Indicant of whether or not the information is considered to be materially misstated is the compliance of that information with reporting standards for environmental information.
- (490) However, unlike the situation for financial reporting in the form of financial statements in accordance with financial reporting frameworks that are either legally required or generally accepted, there are currently no comprehensive legally required or generally accepted reporting standards for environmental information. The Global Reporting Initiative (GRI) has issued Sustainability Reporting Guidelines on Economic, Environmental, a Social Performance³⁵², which includes guidelines for reporting environmental performance, but it might be argued that these do not represent “standards” of reporting at this stage and are still undergoing fundamental development. In any case, to the extent that these may be suitable for an assurance engagement pursuant to ISA 100 or be made suitable by the application of supplementary criteria, in this assurance engagement compliance with the environmental performance guidelines of the GRI and any supplementary criteria necessary would represent the indicant of

³⁵¹ IASB 2002, IAS 1.13

³⁵² Global Reporting Initiative (GRI), *Sustainability Reporting Guidelines on Economic, Environmental, and Social Performance* (GRI, Boston, July 2002; www.globalreporting.org)

whether or not the information is considered to be materially misstated. Because the indicants would be at least partially developed to meet the specific circumstances associated with this particular engagement, the indicant could be considered to be monotonically related to the property “freedom from material misstatement”.

- (491) The practitioner determines whether the environmental information possesses the essential properties predicated by compliance with the requirements of the GRI Guidelines and any supplementary criteria developed for this engagement. In effect, the GRI Guidelines and supplementary criteria then represent the criteria applied to determine whether this specific environmental information is a member of that class of environmental information that is free of material misstatement pursuant to the GRI Guidelines and supplementary criteria.
- (492) It is apparent that for those cases in which the measurement and reporting standards are not as well developed as for financial reporting and for which there are no specific assurance standards other than ISA 100, the circumstances of the engagement have a significant impact on how measurement theory is applied.
- (493) **In conclusion, measurement theory and metaphysical argument can be applied to describe actual assurance engagements.**

4. THE NATURE OF SUBJECT MATTER IN RELATION TO CRITERIA

Issue: What is the relationship between subject matter and criteria generally?

- (494) In the previous Section, it was noted that the identification of subject matter involves its classification predicated upon essential properties or criteria. Furthermore, in the performance of an assurance engagement the practitioner applies further essential properties (criteria) of a particular class to determine whether the subject matter identified is a member of that class. Consequently, the relationship between subject matter and criteria is usually an inextricable one for any subject matter whose existence is dependent upon the criteria used to evaluate that subject matter. A primary example is financial statements, which would not exist without the criteria set forth by the applicable financial reporting framework. Financial statements are ordinarily prepared to meet the criteria of the financial reporting framework applied. This means that, barring intentional misstatement or error from whatever source or reason, the financial statements would be in accordance with that framework.
- (495) However, there is subject matter whose existence is independent of the criteria used to evaluate that subject matter. For example, corporate behaviour in a certain area in a certain enterprise may be evaluated by reference to behaviour in another enterprise. In this case, the criteria for evaluating the behaviour in corporation x would be the behaviour in corporation y. Assuming no codes of

behaviour were applied, the behaviour in each of these enterprises may be completely independent of one another (even if they may be statistically correlated in some way, but this has no cause-and-effect implications). Consequently, one would expect the differences in behaviour – that is, the departures from the criteria applied – to normally be greater than for those cases in which the composition of the subject matter is directed towards the fulfilment of the criteria used to evaluate the subject matter. The issue of subject matter dependence vs. independence of the criteria used for evaluation may have an impact on the application of the risk model used in the engagement process and may therefore also effect evidence gathering procedures. In any case, this area may need further academic research.

- (496) Another interesting aspect of the relationship between subject matter and criteria in some cases where the subject matter and criteria exist independently of one another is their interchangeability as subject matter or criteria, depending upon the perspective taken. Using the corporate behaviour example, in which the behaviour of one corporate is used as a standard to evaluate the behaviour of another, it is apparent that subject matter and criteria can be interchanged. From one perspective, the behaviour of corporation x may be the subject matter and the behaviour of corporation y the criteria by which that subject matter is evaluated, whereas from another point of view the behaviour of corporation y may be the subject matter and the behaviour of corporation x the criteria by which that subject matter is evaluated. In other words, the primary difference between the subject matter and the criteria in these cases is that the subject matter is the point being referenced rather than being the point of reference. The effect of such interchangeability on the assurance obtained in assurance engagements is another issue that may require additional academic research.
- (497) **In conclusion, the existence of subject matter may both be dependent upon or independent of the criteria. Intuitively it may be expected that for cases in which the subject matter exists independently of the criteria, the deviations of the subject matter from the criteria would generally be greater than for those cases in which the subject matter exists only because of the criteria. Furthermore, it should be recognised that sometimes subject matter and criteria are interchangeable based upon the perspective of the assurance engagement. These issues may require further academic research.**

5. IDENTIFYING SUBJECT MATTER

Issue: How should the subject matter of an engagement be distinguished from its properties, etc.?

- (498) In certain kinds of assurance engagements, there may be a question as to what the subject matter ought to be. For example, in an assurance engagement on prospective financial information (PFI), some might argue that there are four

separate subject matters upon which the accountant expresses four separate conclusions:

- the reasonableness of the assumptions as a basis for the preparation of the PFI
- the proper preparation of the PFI on the basis of the assumptions
- the acceptability of the accounting policies for the purposes of the PFI
- the proper presentation and disclosure of the PFI

Others might argue that there is only one subject matter – the PFI itself, or alternatively, its presentation – and that therefore the practitioner need only express a single conclusion on that subject matter, whichever of the two that may be.

- (499) The problem noted above suggests that criteria for the identification of subject matter need to be developed. An examination of the two alternatives for the case above would provide a basis for the development of such criteria.
- (500) In both alternatives noted above, the determination of what is the subject matter cannot be undertaken without considering the related properties that are being subjected to measurement, their indicants, and the criteria used as a basis for that measurement. Under the first alternative, the most important subject matter was identified as being the reasonableness of the assumptions as a basis for the preparation of the PFI – or in short, the reasonableness of the assumptions. In subjecting this subject matter to measurement, one would in fact measure the properties associated with reasonableness by defining those properties (criteria) that are essential for assumptions to be reasonable. Some of the properties, without analysing the adequacy of this list, that have been associated with reasonable criteria include: internal consistency, realism, economical soundness, credibility, relevance, reliability, neutrality, understandability and completeness, etc. The manifestations of these properties would be represented by the dichotomies internally consistent / internally inconsistent, realistic/unrealistic, economically sound / economically unsound, etc.
- (501) To identify the relative role of indicants under the noted identification of subject matter, the property completeness will be analysed further. The property completeness in relation to assumptions used for PFI is often associated with the view that assumptions should be made on all matters significant to the preparation and presentation of the PFI. In other words, the indicant for the property completeness is whether all significant assumptions have been included. This, of course, begs the question as to when an assumption is significant. While there are varying views on this matter, an assumption might be thought of as being significant if the application of alternative assumptions

that are almost as reasonable as the assumption upon which the PFI is based would have a significant effect on the PFI (or on its presentation).

- (502) In this respect the basic inadequacy of the first identification of subject matter becomes apparent, because the indicant for completeness of assumptions can only be defined with reference to the PFI or its presentation, which are not the subject matter: under the first alternative, the reasonableness of the assumptions are the subject matter. Consequently, the reasonableness of the assumptions cannot be identified as the subject matter in this case.
- (503) Under the second alternative, the PFI itself is considered to be the subject matter. Analogously to financial statement subject matter, the property of the subject matter being measured in the assurance engagement would be its presentation. The question that arises in this respect is what manifestations of presentation are possible, since “fairness” or “true and fair” is usually associated with audited financial statements. In this case, the use of the word “reasonableness”, in the sense of a “reasonable presentation” may provide an appropriate nomenclature to describe the manifestations of the property “presentation” (i.e., reasonable vs. not reasonable). Criteria (or, in a sense, the “properties of the properties”) for determining whether or not the presentation of PFI can be construed as being reasonable (i.e., the PFI belongs to that class of PFI whose presentation is reasonable) would be whether:
- the assumptions provide a reasonable basis for the preparation of the PFI
 - the PFI has been properly prepared on the basis of the assumptions
 - the accounting policies are acceptable for the purposes of the PFI
 - the PFI has been properly presented and disclosed.
- (504) To make the comparison between the two alternatives complete, the criteria (property) completeness for whether the assumptions provide a reasonable basis for the preparation of the PFI will be examined. In this case, the indicant of completeness remains whether or not all significant assumptions have been included. It was noted above that an assumption might be thought of as being significant if the application of alternative assumptions that are almost as reasonable as the assumption upon which the PFI is based would have a significant effect on the PFI (or on its presentation). Under this identification of subject matter, the indicant for completeness of assumptions can only be defined with reference to the PFI or its presentation. However, unlike the first alternative identification of subject matter, this does not present a problem, since the PFI or its presentation represent either the subject matter or the property thereof being measured, respectively.

- (505) Consequently, an important principle for the identification of subject matter is that the definition of any properties, criteria, manifestations or indicants applied do not require a reference to an entity of which the subject matter is subsidiary (i.e., a property, criterion, manifestation or indicant of that entity), since this would lead to circular reasoning.
- (506) When auditors express an opinion of financial statements, they provide an overall opinion rather than a so-called piecemeal opinion on specific assertions embodied within the financial statements. For example, auditors do not explicitly express an opinion on the reasonableness of the assumptions (for accounting estimates, for example) as a basis for the preparation of the financial statements, the proper preparation of the financial statements on the basis of the assumptions, the acceptability of the accounting policies for the purposes of the financial statements or the proper presentation and disclosure in the financial statements, even though these assertions may be implicit in their opinion.
- (507) The primary reason for not providing piecemeal opinions appears to be that, for cases in which the opinions are independent of one another such as those noted above, some of the individual opinions do not provide sufficiently valuable information without their being provided in conjunction with the other opinions. For example, the opinion that the financial statements have been properly prepared based on the assumptions does not represent valuable information without the opinion that the assumptions form a reasonable basis for the financial statements. Consequently, it makes sense to issue a composite opinion for the various assertions that are only valuable in conjunction with one another in the context of such a composite opinion ("fair presentation of the financial statements as a whole" or the "reasonableness of the presentation of the PFI") instead of providing separate individual opinions on the individual assertions.
- (508) Another reason for composite rather than piecemeal opinions is that, in some cases, the opinions are not independent of one another. The expression of a separate opinion on one particular subject matter where the content of that opinion depends upon the content of another opinion that is also separately expressed appears somewhat self-defeating, since a single opinion could encompass both. This view ties in to the definition of an assurance engagement compared to that for an agreed-upon-procedures engagement as noted in Chapter III Part B Section 3: an assurance engagement encompasses the expression of an overall conclusion rather than the description of the results of individual procedures. Of course, there are degrees of dependence, but it may require additional academic research to develop criteria for determining the degree of dependence that would preclude separate opinions.
- (509) **In conclusion, the identification of subject matter should be guided by the following principles:**

4. the identification of the subject matter should not lead to the definition of any properties, criteria, manifestations or indicants that require a reference to an entity of which the subject matter is subsidiary (i.e., a property, criterion, manifestation or indicant of that entity), since this would lead to circular reasoning;
5. separate conclusions or opinions should not be expressed for those cases in which some of those conclusions or opinions do not yield valuable information without being expressed in conjunction with other independent conclusions or opinions;
6. separate conclusions or opinions should not be expressed for conclusions or opinions that are dependent upon one another.

6. SUITABLE SUBJECT MATTER

Issue: When is subject matter suitable for an assurance engagement?

- (510) Of the assurance and attestation standards, only ISA 100 attempts to define when subject matter is suitable for an assurance engagement. ISA 100.21 states, "The subject matter of an assurance engagement is to be identifiable, capable of consistent evaluation or measurement against suitable criteria and in a form that can be subjected to procedures for gathering evidence to support that evaluation or measurement."³⁵³ This Paper will address the concept of suitability first.
- (511) The previous Part defined the characteristics of valuable information as being the determinants of whether or not information is suitable to users. Presumably, some of these concepts may be useful in determining what the required characteristics of subject matter are for it to be suitable for an assurance engagement. First and foremost, for subject matter to be suitable, something about that subject matter must be valuable to users of the assurance engagement report. Furthermore, that something about the subject matter must be sufficiently valuable to users so that either the users themselves are prepared to financially support the performance of an assurance engagement to obtain more information about the subject matter or to exert pressure in one way or another to have responsible parties finance the assurance engagement for that purpose.
- (512) In other words, the marginal benefits of performing the assurance engagement on this specific subject matter need to exceed the marginal costs of that engagement. With reference to the diagrams on the characteristics of valuable information and the supporting narrative in Section 9 of the previous Chapter, it is apparent that these characteristics must also apply to information about a

³⁵³ IFAC 2001, ISA 100.21

subject matter for that information about that subject matter to be suitable for an assurance engagement.

- (513) As was noted previously in Section 4 of Part B of Chapter III, an assertion represents information or data by virtue of its being a statement about a subject matter. Since in the previous paragraph, it was noted that the characteristics of valuable information apply to information about subject matter for that information about the subject matter to be suitable for an assurance engagement, these characteristics must also apply to assertions about subject matter. By employing a predicate, assertions also represent a classification exercise in which essential properties ascribed to a class of subject matter represent the criteria for membership in that class (see Section 2 of this Part). Furthermore, Section 4 of Part B of Chapter III also concluded that assertions are generated by the application of the criteria to the subject matter. Consequently, the characteristics of valuable information apply to the assertions generated by the application of the criteria to the subject matter in an assurance engagement in determining whether these assertions (and hence the subject matter) to be suitable for that assurance engagement.
- (514) In short, the suitability of subject matter for an assurance engagement is governed by the suitability of the assertions generated by the application of the criteria to that subject matter. This is in consistent with the solution applied in AT § 100.18, in which a practitioner should consider whether the assertion generated by the criteria has an appropriate balance of certain characteristics (relevance and reliability).³⁵⁴ This conclusion begs the question as to what the characteristics of suitable subject matter are so that suitable assertions can be generated.
- (515) However, as was determined in Section 2 of this Part, even the very identification of subject matter is connected to the criteria for that identification, which represents the application of criteria for the class identified. Consequently, subject matter is incapable of identification without the application of criteria, which by definition *is* an assertion. This suggests that, in addition to the ability to identify the subject matter, the other characteristics of suitable subject matter as set forth by ISA 100 are not separable from the criteria applied in a particular case; hence, it would not be useful to speak of “suitability of subject matter” in isolation. In this sense, it would be the assertions generated by the application of the criteria to the subject matter that would need to be “capable of consistent evaluation or measurement ... and in a form that can be subjected to procedures for gathering evidence to support that evaluation or measurement”, rather than the subject matter itself. The relationship between evidence and subject matter will be explored in Part D of this Chapter.

³⁵⁴ AICPA 2001, AT § 100.18

- (516) It appears, therefore, that it is the assertions generated by the application of the criteria on the subject matter that would need to be suitable. Nevertheless, this does not mean that, for given criteria, some subject matter are not more suitable than others. In this sense, for given criteria a specific subject matter would be suitable if the application of those criteria leads to valuable information for the users of that information, in which case the characteristics of valuable information as noted in the previous Chapter apply for the determination of the suitability of the subject matter. There are, of course, different degrees of valuable information (i.e., some information about subject matter is more valuable than other information or than less information) and so it appears reasonable to also speak of different degrees of suitability of subject matter for given criteria.
- (517) This raises the question as to when or what degree of information would not be considered suitable and whether a practitioner ought to be associated with an engagement in which the information generated is not suitable. **In this respect, there appear to be ethical considerations that govern the association of the practitioner with the subject matter beyond sheer value to the user.** Presumably, the profession would not favour its practitioners being associated with subject matter of a criminal nature or of a nature unbecoming the profession. The profession promulgates codes of professional conduct that prescribe ethical conduct in this regard. This suggests that, in contrast to the conclusion drawn in the previous Part, suitability is not equivalent to value: it depends upon both value and ethical considerations. Furthermore, value and ethical considerations are not completely independent of one another. For example, it is unlikely that a profession would deem it to be ethical to perform an assurance engagement in which it was clear before engagement acceptance that it would not be of value (i.e. not meaningful) to the users by meeting user purposes.
- (518) Hence in identifying suitable subject matter for given criteria, suitability represents a continuum from less to more suitability based upon the value of the information provided to its recipients under the ethical constraints of the profession. What is a suitable subject matter depends upon the circumstances of the engagement: that is, while suitability of subject matter represents a continuum across types of engagements and specific engagements within those types, whether or not the subject matter is sufficiently suitable for given criteria within a specific engagement represents a threshold for being able to perform that particular engagement. At this stage, this argument does not impinge upon the question in relation to whether suitability varies with the level of assurance desired for the engagement.
- (519) The previous arguments also apply to the properties of subject matter and hence to indicants of properties of subject matter. In other words, in identifying the appropriate properties of the subject matter to be measured and the indicants thereof, the practitioner would be guided by what would be suitable for

that engagement. Beyond the characteristics of valuable information, in choosing the properties of the subject matter to be measured and the indicants thereof, the practitioner also needs to consider the degree to which the properties represent valid properties of that subject matter and the indicants valid measurements of the properties. Furthermore, after having obtained the results of the measurement process and thereby having identified the manifestations of the properties, the practitioner would need to consider the degree to which the manifestations validly represent the properties and indicants thereof measured.

- (520) **In conclusion, subject matter (and its properties being measured) is suitable when the application of the criteria to the subject matter generates suitable assertions. Assertions are suitable when they are sufficiently valuable for the users of that information, by satisfying the characteristics of valuable information, and meet the ethical requirements of the profession. While suitability of subject matter (and its properties and indicants thereof) for given criteria represents a continuum across engagements types and specific engagements within such types, for a particular engagement the suitability of the subject matter depends upon the circumstances of that specific engagement and would represent a threshold to be satisfied to enable the performance of the assurance engagement. The following diagram depicts the relationship between suitability of information, valuable information (see the diagrams and discussion in the previous part) and ethical considerations.**

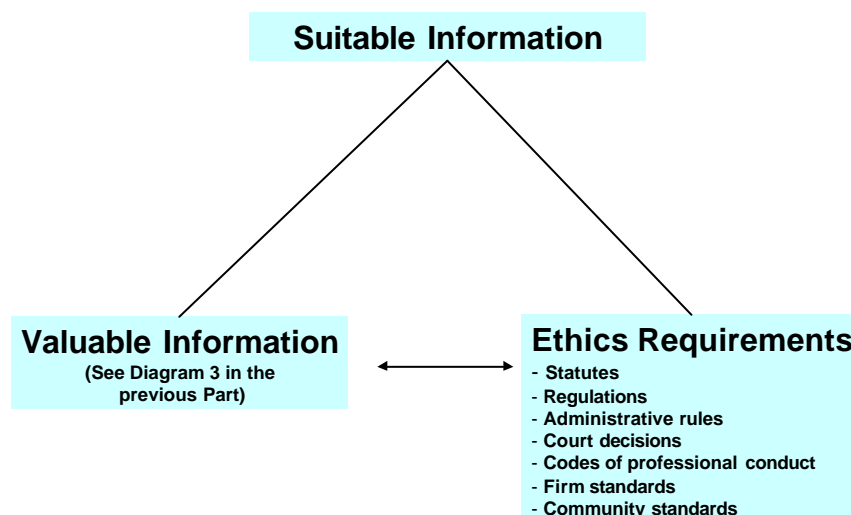


Diagram 8

7. INFORMATION OR DATA VERSUS OTHER SUBJECT MATTER

Issue: How should subject matter be defined in relation to information, data and other subject matter and the enhancement of their credibility or quality?

- (521) At this stage in the examination of the nature of subject matter, it may be useful to revisit the discussion about subject matter in Part A and Section 4 of Part B of Chapter III about the kinds of subject matter and the implications thereof for direct vs. indirect engagements. The previous Section points out that the application of the criteria to the subject matter generates assertions, which are information, and that the application of the criteria represents property or manifestation ascription. In this connection, the question then arises whether it is useful to speak of subject matter other than data or information in relation to assurance engagements. For example, when a practitioner is engaged in a direct reporting engagement to determine whether an internal control system complies with certain control criteria, the practitioner generates an assertion with respect to that compliance. That assertion as expressed in the conclusion has been obtained with a certain level of assurance – that is, the practitioner reaches the conclusion that the information embodied in the assertion is not materially misstated with that certain level of assurance.
- (522) In comparison, for an indirect reporting engagement, such as would be the case if management has issued an assertion that the internal controls comply with certain control criteria, the practitioner would apply those criteria to determine whether that assertion is correct. Some might argue that the subject matter in the first example is the internal control system itself, whereas the subject matter in the second example is the assertion by management about the compliance of the internal controls with certain control criteria. In the first example, the assertion generated by applying the criteria to the subject matter could be “the internal control system complies with XYZ control criteria”. In the second example, the assertion generated by applying the criteria to the subject matter could be “the assertion by management that the internal control system complies with XYZ control criteria is correct”. In this case, we will assume that management has not undertaken any measurements of the controls.
- (523) As was pointed out in Section 4 of Part B of Chapter III, there is some question as to whether these two engagements are in fact distinguishable, since in both cases the underlying assertion is “the internal control system complies with XYZ control criteria”. Under the current definitions of subject matter in Part A of Chapter III, the subject matter in the first case is a system whereas the subject matter in the second case is information about a system. Yet the overall information provided in the first case is not any more or less valuable than in the second – especially since management did not undertake any measurements itself in the second case. This was the reason for suggesting in Section 4 of Part B of Chapter III that measurement vs. remeasurement would provide a

more sensible basis for distinguishing engagements than direct vs. indirect engagements.

- (524) This, however, also leads to the question as to whether assurance engagements should be limited to obtaining assurance about information about subject matter (i.e., assertions about subject matter generated by the application of the criteria) rather than to obtaining assurance about the subject matter itself, which would imply that information and data would in effect represent the possible universe of subject matters for assurance engagements. After all, an assurance engagement involves lending credibility to information about subject matter rather than to the subject matter itself, unless the subject matter represents information or data.
- (525) On the other hand, it is not clear whether either perspective provides any concomitant advantages or disadvantages from an engagement performance point of view. In any case, the arguments above suggest that in an assurance engagement the practitioner measures and evaluates assertions with respect to subject matter generated by the application of the criteria. The fact the assertions represent information or data may, in itself, be an interesting, but not necessarily crucial distinction. The importance of this distinction may manifest itself when assurance standards are developed for specific subject matter. This issue is also a proper subject for further academic research.
- (526) Furthermore, assurance engagements do not improve the quality of the subject matter itself unless the responsible party has an opportunity to make changes to the subject matter. This, however, is an ancillary result of an assurance engagement and is not essential to its nature.
- (527) **In conclusion, as was noted previously, there is little advantage to distinguishing between direct and indirect engagements, but there are important differences arising between measurement versus remeasurement engagements. In an assurance engagement, the assertions measured by the practitioner are generated by the application of the criteria on the subject matter. Although the assertions represent information or data, it is not clear that this conclusion has a critical impact on the nature of assurance engagements. Certainly, one can only lend credibility to information. The fact that the performance of an assurance engagement may lead to improvements in the quality of the subject matter is an ancillary effect that is not essential to an assurance engagement.**

C. CRITERIA

Issue: What is the nature of criteria and what is the nature of their relationship with the other elements of an assurance engagement?

1. DEFINITION AND NATURE OF CRITERIA

Issue: How can criteria be defined?

- (528) The dictionary defines a criterion as “a standard or rule by which a judgement can be made; a model, test or measure.”³⁵⁵ ISA 100 defines the criteria as
- “... the standards or benchmarks used to evaluate or measure the subject matter of an assurance engagement. Criteria are important in the reporting of a conclusion by a professional accountant as they establish and inform the intended user of the basis against which the subject matter has been evaluated or measured in forming the conclusion. Without this frame of reference any conclusion is open to individual interpretation and misunderstanding.”³⁵⁶
- (529) While AT §100 did not define criteria even though the concept was used, AT §101.24 defines criteria as “... the standards or benchmarks used to measure and present the subject matter and against which the practitioner evaluates the subject matter.”³⁵⁷ This definition is very close to the IFAC definition. The CICA Handbook Section 5025.36 uses the following definition “Criteria are benchmarks against which the subject matter of the assurance engagement can be evaluated”;³⁵⁸ this definition is also very close to the IFAC definition.
- (530) While these definitions provide a useful basis for determining that criteria are standards or benchmarks used to measure or evaluate subject matter in an assurance engagement, they do not examine what such standards or benchmarks represent, which would provide some indications about the nature of criteria. The previous Part discussed the nature of subject matter, but in doing so also addressed the relationship between subject matter and criteria and hence the nature of criteria. At this stage, it may be useful to summarise the insights acquired about the nature of criteria based upon the examination of the nature of subject matter.
- (531) A major insight obtained about the nature of criteria is that the properties and manifestations thereof that are deemed essential to membership in a particular class of subject matter in effect represent the criteria that determine

³⁵⁵ Funk & Wagnalls Canadian College Dictionary, 1989, p. 319.

³⁵⁶ IFAC 2001, ISA 100.22

³⁵⁷ AICPA 2001, AT §101.24

³⁵⁸ CICA 2001, Handbook Vol. I, Section 5025.36

membership in that particular class of subject matter. Hence, property ascription to classes of subject matter defines the membership criteria for those classes. As a result, property ascription to classes of subject matter represents the link between criteria and classes of subject matter. The very identification of subject matter depends upon whether that subject matter bears the properties (and manifestations thereof) deemed essential to that class. In this sense, the application of the criteria to measure or evaluate the subject matter in an assurance engagement represents a classification exercise, in which the practitioner determines whether the subject matter possesses the essential properties (the criteria) for membership in the class in question.

- (532) In particular, the relationship between subject matter and criteria is an inextricable one for those subject matters whose existence is dependent upon the criteria used to evaluate that subject matter. Furthermore, where subject matter and criteria exist independently of one another, they may be interchangeable as subject matter or criteria, depending upon the perspective taken. It was also recognised that for some classes of subject matter the criteria are not as well developed as for others. In these cases, supplementary criteria may need to be developed and applied.
- (533) It was also noted that assertions about subject matter are generated by the application of criteria to the subject matter. These assertions may be either explicit or implicit.
- (534) **In conclusion, criteria represent standards by which a practitioner judges whether a specific subject matter belongs to a particular class of subject matter whose essential properties and manifestations thereof are defined by those criteria. Classes of subject matter and hence subject matter may be created by the criteria and in other cases classes of subject matter and hence subject matter may be more or less dependent upon the criteria. In some circumstances, classes of subject matter and hence specific subject matter are completely independent of the criteria; in some cases, this may lead to interchangeability between subject matter and criteria, depending upon the perspective taken. Some criteria are not as well developed as others, and therefore supplementary criteria may need to be developed and applied. Assertions, whether explicit or implicit, about subject matter are generated by the application of the criteria to that subject matter.**

2. SUITABLE CRITERIA

Issue: When are criteria suitable for an assurance engagement?

- (535) The standard setters addressing assurance or attestation engagements also address the suitability of the criteria for assurance or attestation engagements, respectively. ISA 100.22 states “Criteria in an assurance engagement need to be suitable to enable reasonably consistent evaluation or measurement of the

subject matter within the context of professional judgment. Suitable criteria are context-sensitive, that is, relevant to the engagement circumstances”.³⁵⁹ In ISA 100.44 practitioners are specifically required to assess whether the criteria are suitable to evaluate the subject matter.³⁶⁰ ISA 100.45 then defines the characteristics of suitable criteria as follows:

“The decision as to whether criteria are suitable involves considering whether the subject matter is capable of reasonably consistent evaluation against or measurement using such criteria. The characteristics for determining whether criteria are suitable are as follows:

- (a) Relevance: relevant criteria contribute to conclusions that meet the objectives of the engagement, and have value in terms of improving the quality of subject matter, or its content, so as to assist decision-making by intended users;
- (b) Reliability: reliable criteria result in reasonably consistent evaluation or measurement and, where relevant, presentation of the subject matter and conclusions when used in similar circumstances by similarly qualified professional accountants;
- (c) Neutrality: neutral criteria are free from bias. Criteria are not neutral if they cause the practitioner’s conclusion to mislead report users;
- (d) Understandability: understandable criteria are clear and comprehensive and are not subject to significantly different interpretation; and
- (e) Completeness: complete criteria exist when all the criteria that could affect the conclusions are identified or developed, and used.”³⁶¹

(536) ISA 100.46 adds the following on the application of these characteristics:

“The assessment of whether criteria are suitable involves weighing the relative importance of each characteristic and is a matter of judgment in light of the specific objective of the engagement. Irrespective of whether the subject matter is quantitative or qualitative, the criteria are to be suitable. ... If any of the characteristics are not met, the criteria are unsuitable.”³⁶²

(537) Of particular interest is the statement in in both ISA 400.22 and ISA 400.45 to the effect that the application of the criteria to the subject matter should result in reasonably consistent measurement or evaluation. In other words, the suitability of the criteria is defined by the results that their application yields for particular subject matter in a particular engagement – not by any inherent characteristics.

³⁵⁹ IFAC 2001, ISA 100.22

³⁶⁰ IFAC 2001, ISA 100.44

³⁶¹ IFAC 2001, ISA 100.45

³⁶² IFAC 2001, ISA 100.46

The characteristics of suitable criteria, on the other hand, address both the results of the application and inherent matters. Relevance, reliability and completeness are defined in terms of the results of application, whereas neutrality is defined in term so both results of application and inherent characteristics: freedom from bias (inherent) and misleading users (results of application). Understandability is defined only in terms of inherent characteristics (clear, comprehensive, unambiguous).

- (538) AT §100 covers the issue of reasonable criteria and requires that criteria be reasonable for an attestation engagement to be performed.³⁶³ Furthermore, AT §100.18 states “Reasonable criteria are those that yield useful information. The usefulness of information depends on an appropriate balance between relevance and reliability. Consequently, in assessing the reasonableness of measurement and disclosure criteria, the practitioner should consider whether the assertion generated by such criteria has an appropriate balance ...” In other words, the AICPA takes a view in consonance with that described in Section 6 of the previous Part, that what matters is the outcome of the measurement – the suitability of the assertions resulting from the application of the criteria to the subject matter – rather than any isolated evaluation of the suitability of the criteria. The characteristics of suitable criteria pursuant to AT §100 and ISA 100 are discussed further in Section 6 of Part A Chapter V.
- (539) The reader is also referred to Section 6 of Part A Chapter V for a treatment of the CICA characteristics of suitable criteria, which are very close in form and content to the IFAC requirements in ISA 100. The same Section also addresses the criteria developed by FEE for the information contained in auditors’ reports, which addresses the characteristics from the point of view of the information that the report yields, and the attributes of suitable criteria pursuant to AT §101, which takes a mixed perspective of criteria like ISA 100 and the CICA. One important requirement contained in AT §101.23 is that the criteria are available to users (as opposed to just being available to the responsible party and the practitioner).³⁶⁴ AT § 101.33 explains the ways in which the criteria should be available to users:
- “ a. Available publicly
 - b. Available to all users through inclusion in a clear manner in the presentation of the subject matter or in the assertion
 - c. Available to all users through inclusion in a clear manner in the practitioner’s report
 - d. Well understood by most users, although not formally available (for example, “The distance between points A and B is twenty feet;” the

³⁶³ AICPA 2001, AT §100.14-.16

³⁶⁴ AICPA 2001, AT §101.23

criterion of distance measured in feet is considered to be well understood)

- e. Available only to specified parties; for example, terms of a contract or criteria issued by an industry association that are available only to those in the industry.”³⁶⁵

- (540) AT § 101.34 also stipulates, that “...if the criteria are available to only specified parties, the practitioner’s report should be restricted to those parties who have access to the criteria...”³⁶⁶ The position that the criteria should be available to users and that the report be restricted to such users is probably justified on the basis that users need access to the criteria to understand the conclusions and therefore the information is not beneficial without the criteria. However, it should be noted that none of the standard setters view access to the subject matter (or even to information about the subject matter) as a prerequisite for an assurance engagement. Consequently, this requirement for criteria (and a concomitant one for subject matter) is one that may need to be researched in greater depth.
- (541) As was noted in Section 6 of the previous Part, the information contained in an assertion is valuable only to the extent that it meets the characteristics of valuable information as defined in this Paper. Furthermore, consistent with AT §100 and 101, whether or not criteria are suitable depends primarily upon whether or not their application to the subject matter yields valuable assertions – i.e., it is the assertions generated by the application of the criteria on the subject matter that would need to be suitable. The determination as to whether criteria are suitable then mirrors that for subject matter concluded in Section 6 of the previous Part: for given subject matter, some criteria may be more suitable than others. Hence, for given subject matter certain criteria would be suitable if the application of those criteria leads to valuable information for the users of that information, in which case the characteristics of valuable information as noted in the previous Chapter apply for the determination of the suitability of the criteria. Accordingly, it would be counterproductive to apply the varying concepts for suitability of criteria presented by the standard-setters noted above.
- (542) Following the argument in the previous Part for subject matter, since there are different degrees of valuable information, it appears reasonable to speak of different degrees of suitability of criteria for given subject matter and of the ethical constraints on the suitability of criteria. Hence, mirroring the situation for subject matter, suitability of criteria for given subject matter also represents a continuum from less to more suitability based upon the value of the information provided to its recipients under the ethical constraints of the profession. Whether criteria are suitable depends upon the circumstances of the

³⁶⁵ AICPA 2001, AT §101.33

³⁶⁶ AICPA 2001, AT §101.34

engagement: suitability of criteria represents a continuum across types of engagements and specific engagements within those types, but whether or not the criteria are sufficiently suitable for given subject matter within a specific engagement represents a threshold for being able to perform that particular engagement. Again, at this stage this argument does not impinge upon the question in relation to whether suitability varies with the level of assurance desired for the engagement.

- (543) Since the characteristics of valuable information apply to the determination of suitable criteria, evidence supporting their content also needs to be accessible and available to the practitioner. In other words, like subject matter, criteria need to be susceptible to evidence gathering procedures. The high degree of similarities between the types of entity “subject matter” and “criteria” suggest that criteria also possess properties, manifestations and indicants for these. Following the line of argument for subject matter, for given subject matter, its properties, manifestations and indicants would then also need to be suitable and subsequent to having received the results of the measurement process, the practitioner would need to consider the degree to which the properties represent valid properties of the criteria, the indicants valid measurements of the properties, and the manifestations the properties and indicants thereof measured.
- (544) **In conclusion, standard setters have developed criteria for determining whether criteria are suitable for an assurance engagement, but the nature and scope of these criteria vary. The application of the characteristics of valuable information as defined in the Part A of this Chapter appears to offer better means of evaluating the suitability of criteria. Based on the examination of the nature of subject matter undertaken in the previous Part, the nature of criteria is very similar to that of subject matter. This includes the view that the suitability of criteria depends on both their application leading to valuable information for given subject matter and the ethical requirements. Furthermore, the suitability of criteria represents a continuum, but for a specific engagement, the criteria must be sufficiently suitable for that engagement. Like subject matter, criteria must be susceptible to evidence gathering procedures. It appears to make intuitive sense that users should have access to the criteria in some way, but this is an issue that may require further research.**

3. ESTABLISHED VERSUS SPECIFICALLY-DEVELOPED CRITERIA

Issue: What are the implications of criteria being established versus specifically developed for an engagement on the suitability of criteria?

- (545) ISA 400.44 mentions that criteria may be either established or specifically developed. It defines established criteria as those embodied in law or regulation, or those issued by recognised bodies of experts that follow due

process. Specifically developed criteria are defined as those identified for the purpose of the engagement that are consistent with the engagement objective. ISA 400.44 also points out that the source of the criteria will affect the amount of work the practitioner will need to carry out to assess the suitability of these for a particular engagement. Furthermore, ISA 400.44 indicates that the practitioner may discuss the criteria to be applied with the responsible party or the intended user and the practitioner and those engaging the practitioner will need to agree on the criteria to be applied in the engagement.³⁶⁷ ISA 400.46 suggests that it would be less likely that established criteria in emerging types of assurance engagements exist, and that consequently criteria will need to be specifically developed in these circumstances.³⁶⁸

- (546) Of particular interest in the assertion in ISA 400.47, that practitioners generally conclude that established criteria are suitable when the criteria are consistent with the engagement objective, unless an identifiable limited group of users has agreed to other criteria. In these cases, ISA 400.47 restricts the practitioner's report for that group of users by indicating in the report that it is intended only for the use of that group of users. Pursuant to ISA 400.47 the practitioner attempts to obtain from the intended users, those engaging the practitioner or the responsible party, agreement that specifically developed criteria are sufficient for the intended users' purposes so that the practitioner is satisfied that these criteria do not result in a report that is misleading to intended users. When such agreement is not forthcoming, ISA 400.47 requires the practitioner to consider how this will effect the nature and extent of work necessary to be satisfied as to whether the criteria and on the information provided about the criteria in the practitioner's report are suitable.³⁶⁹
- (547) The third general standard in AT §100.14 states that a practitioner should perform an attestation engagement only if that practitioner has reason to believe that the assertion is capable of evaluation against reasonable criteria that either have been established by a recognised body or are stated in their assertion in a sufficiently clear and comprehensive manner for a knowledgeable reader to be able to understand them.³⁷⁰ AT § 100.16 goes on to state that criteria issued by regulatory agencies and other bodies composed of experts that follow due process procedures, including procedures for broad distribution of proposed criteria for public comment, normally should also be considered reasonable criteria for this purpose.³⁷¹ Furthermore, AT §100.17 asserts:

“However, criteria established by industry associations or similar groups that do not follow due process or do not as clearly represent the public

³⁶⁷ IFAC 2001, ISA 100.44

³⁶⁸ IFAC 2001, ISA 100.46

³⁶⁹ IFAC 2001, ISA 100.47

³⁷⁰ AICPA 2001, AT §100.14

³⁷¹ AICPA 2001, AT §100.16

interest should be viewed more critically. Although established and recognized in some respects, such criteria should be considered similar to measurement and disclosure criteria that lack authoritative support, and the practitioner should evaluate whether they are reasonable. Such criteria should be stated in the assertion in a sufficiently clear and comprehensive manner for knowledgeable readers to be able to understand them.³⁷²

- (548) AT § 101.25 and .26 also distinguish between criteria that are established or developed by bodies of experts that follow due process procedures and those that may be established or developed by others that do not follow due process procedures or do not clearly represent the public interest. The former are ordinarily considered suitable – the latter should be evaluated for their suitability by the practitioner based on the attributes of suitable criteria.³⁷³ AT §101.28 points out that different sets of criteria may be suitable for the same engagement.³⁷⁴ A closer examination of this assertion, however, indicates that AT §101.28 actually uses indicants of properties of subject matter as examples of criteria. Given the strong relationship between properties and criteria, this is not without merit, but it may be useful for practitioners to understand the nature of indicants separately from the criteria that created them.
- (549) Consistent with ISA 100, the CICA Handbook also points out that the amount of work that a practitioner will need to perform to assess the suitability of the criteria depends upon the source of the criteria.³⁷⁵ The CICA Handbook also distinguishes between generally accepted criteria (recommendations of the CICA, laws and regulations, and criteria established by other recognised bodies of experts that follow due process procedures including public consultation and debate) and other criteria (criteria developed by organisations that do not follow due process procedures and criteria developed specifically for the engagement)³⁷⁶. Under the requirements of the CICA Handbook, practitioners would generally consider generally accepted criteria to be suitable for a specific engagement if these are consistent with the engagement objective; such criteria would not be suitable only if the engagement objective is to meet the needs of an identified limited group of users or if the practitioner is satisfied that the users have agreed that these specific criteria meet their needs better than the generally accepted criteria.³⁷⁷
- (550) The CICA Handbook stipulates that criteria that are not generally accepted should be assessed for suitability, since these lack authoritative support, and

³⁷² AICPA 2001, AT §100.17

³⁷³ AICPA 2001, AT §100.25 and .26

³⁷⁴ AICPA 2001, AT §100.28

³⁷⁵ CICA 2001, *Handbook Vol. I*, Section 5025.41

³⁷⁶ CICA 2001, *Handbook Vol. I*, Section 5025.41-.42

³⁷⁷ CICA 2001, *Handbook Vol. I*, Section 5025.42

the practitioner would obtain agreement from the intended users and responsible party that the criteria are suitable for that specific engagement. If no such agreement is obtained, the practitioner should consider the effect of this on the engagement process and the resulting report.³⁷⁸ Under the requirements of the CICA Handbook, the performance of engagements using criteria that, in the judgement of the practitioner, would result in a misleading report for the user is prohibited.³⁷⁹

- (551) **In conclusion and based on the requirements of the four standards analysed, specifically developed criteria need not necessarily be less suitable than established criteria. However, when established criteria are available and meet the objective of the engagement (i.e., yield suitable assertions or information), these should be used, since presumably certain bodies operating in the public interest have established their suitability for that kind of engagement. The practitioner would need to perform more work to assess the suitability of specifically developed criteria compared to that which would need to be performed to assess the suitability of established criteria, since their suitability for certain kinds of engagements would have authoritative support, whereas such authoritative support of suitability would be lacking for specifically developed criteria. If specifically developed criteria are applied, their application should be agreed with the responsible party and the users, and the report should be restricted to those parties. In any case, the application of the criteria should not lead to unsuitable assertions (including misleading information) in the assurance report.**

³⁷⁸ CICA 2001, *Handbook Vol. I*, Section 5025.44

³⁷⁹ CICA 2001, *Handbook Vol. I*, Section 5025.45

D. EVIDENCE

Issue: What is the nature of evidence and what is the nature of its relationship with the other elements of an assurance engagement?

1. DEFINITION OF EVIDENCE

Issue: How can evidence be defined?

(552) A dictionary defines evidence as follows:

“...1. That which serves to prove or disprove something; that which is used for demonstrating the truth or falsity of something; support; proof ... 2. That which serves as a ground for knowing something with certainty or for believing something with conviction; corroboration ... 3. An outward indication of the existence or fact of something...”³⁸⁰

In an assurance engagement, such as in an audit of financial statements, practitioners seldom speak of “proof”, “disproof”, “truth”, “falsity” or “certainty” (especially given the reasonable assurance obtained rather than absolute or virtual certainty), but it would appear that the concept of “that which serves as a ground for believing something with conviction” adequately describes the notion of “evidence”.

(553) In contrast, the legal definition of evidence is “something (including testimony, documents and tangible objects) that tends to prove or disprove the existence of an alleged fact.”³⁸¹ In this sense, the legal definition of evidence is closely related to that of “fact”, which in turn is defined as “something that actually exists; an aspect of reality” and “an actual or alleged event or circumstance, as distinguished from its legal effect, consequence, or interpretation”.³⁸² In other words, in a legal sense, evidence is something that tends to prove or disprove the existence of something, an aspect of reality, an event or circumstance. Of interest is the use of the phrase “*tends to prove or disprove*”, which suggests that legal evidence may be less than conclusive. The legal definition of evidence is also distinguishable from the dictionary definition by reference to matters external to the mind of the individual evaluating the evidence (testimony, documents and tangible objects), which is narrower than the dictionary definition.

(554) Audit literature has taken a somewhat different view of evidence compared to the legal profession. The broadest definition as noted in Part D of Chapter II was proposed by Mautz and Sharaf as being “all influences on the mind of the

³⁸⁰ *Funk & Wagnalls Canadian College Dictionary*, 1989, p. 460

³⁸¹ Garner et al., *Black’s Law Dictionary*, Seventh Edition, p. 576

³⁸² Garner et al., *Black’s Law Dictionary*, Seventh Edition, p. 610

auditor”. Part B Chapter II also noted other approaches to the definition of evidence, such as that of Smieliauskas, who defines audit evidence as “the premises in the argument supporting the audit opinion”. The operational definition used in the Paper thus far as set forth in Part B of Chapter II is: any information by which assertions (about properties of subject matter, criteria, engagement processes or other evidence) are sought to be confirmed or refuted.

- (555) ISA 500 defines audit evidence as “the information obtained by the auditor in arriving at the conclusions on which the audit opinion is based”.³⁸³ Although the concept of evidence is an important one in ISA 100, evidence is not defined, nor described as an element of an assurance engagement.³⁸⁴ AU § 326 does not define audit evidence, but does state that it consists of the underlying accounting data and all corroborating information available to the auditor.³⁸⁵ While evidence is mentioned in a number of instances in AT §100, it is not defined.³⁸⁶ The same applies to AT §101.³⁸⁷ Much like AU § 326, the CICA Handbook does not define audit evidence, but states that it consists of the source documents and accounting records underlying the financial statements and all other information which is pertinent to the audit.³⁸⁸ The CICA Handbook does not provide a definition of evidence for assurance engagements, even though the concept is used in the standard.³⁸⁹ However, by extending the scope of audit evidence to all other information pertinent to the audit, both the AICPA and the CICA standards implicitly recognise a broad definition of audit evidence based on the concept of information that would be consistent with the definition in ISA 500. The APB Statement of Auditing Standards No. 400 does not address the definition of audit evidence.³⁹⁰
- (556) The legal definition refers to matters external to the mind, whereas the other definitions tend to take an “information” approach to evidence. Furthermore, the difference between the definitions of audit evidence (essentially, that which is used to support the content of the opinion) as opposed to the legal or dictionary definition also requires some analysis. The fundamental questions that need to be asked about the definition and nature of evidence in relation to assurance engagements are: 1. is evidence only information or can it also be something other than information and 2. is only evidence that supports a conclusion by the practitioner in his or her report assurance evidence, or should the definition be

³⁸³ IFAC 2001, ISA 500.04

³⁸⁴ IFAC 2001, ISA 100.08 and .52-.56

³⁸⁵ AICPA 2001, AU §326.15

³⁸⁶ AICPA 2001, AT §100

³⁸⁷ AICPA 2001, AT §101

³⁸⁸ CICA 2001, *Handbook Vol. I*, Section 5300.02

³⁸⁹ CICA 2001, *Handbook Vol. I*, Section 5025

³⁹⁰ APB 2002, *Auditing and Reporting*, SAS 400

broader than this? This implies that an operational definition of evidence will depend upon an analysis of its nature.

- (557) **In conclusion, there are different definitions of evidence for commonly used English, legal terminology, audit and assurance literature, and audit and assurance standards. While there are many similarities among these definitions, they also contain important differences. An operational definition of evidence depends upon an analysis of its nature.**

2. THE NATURE OF EVIDENCE

Issue: What is the nature of evidence?

- (558) The first question posed in the previous Section is essentially epistemological in character. In epistemological discussion, evidence is usually defined as either internal states (e.g., beliefs) or the believed propositions themselves, although whether evidence includes other mental states such as perceptual experiences is a controversial issue.³⁹¹
- (559) While this sounds very close to the definition for audit evidence proposed by Mautz and Sharaf as noted above, the two definitions do not coincide. The definition by proposed by Mautz and Sharaf would include influences on the mind of the auditor that are not information or experiences (such as the influence of the physical well-being of the auditor on his or her mind), whereas the epistemological definition, even if it includes perceptual experiences, would not necessarily be as broad as including experiences not related to perception. Nevertheless, even if one were to limit the definition of evidence to the believed proposition, by definition a proposition would be an assertion of some sort – which, given the discussion in Section 7 Part B of the previous Chapter on the essential equivalence between assertions and information, suggests that a believed proposition is information.
- (560) In Part D Chapter II of this Paper, data are defined as language, mathematical, or other symbolic surrogates which are generally agreed upon to represent people, objects, events and concepts, whereas information, on the other hand, is the result of modelling, formatting, organising, or converting data in a way that increases the level of knowledge for the recipient. In other words, by definition, information increases the knowledge of the recipient, which implies that the term information reflects upon the effect of what was conveyed or experienced on the recipient. This is consistent with the characteristics of valuable information in Section 9 Part A of this Chapter, where the beneficial nature of information depends upon its usefulness, which in part depends upon user information needs, and its understandability to the user, which depends upon the user profile and the information profile. The interdependence between user

³⁹¹ J. Dancy and E. Sosa, eds., p. 120

information needs and the user profile, the information profile and the user profile, and useful information and understandable information described in that Section show that the nature of specific information cannot be segregated from the characteristics and hence the state of mind of its user or recipient.

- (561) The question then arises as to what the difference between evidence and information might be, if there is one. In this sense, the answer is apparent: evidence represents information that supports the beneficial nature of other information – by providing the epistemic basis for that other information. Hence, evidence represents essentially any information that can reasonably be expected to contribute to the confirmation or refutation an assertion (i.e., other information). However, this leads to the quandary associated with the meaning of evidential support. As epistemologists have pointed out

“It is extraordinarily difficult to state in a general way the conditions under which a body of evidence provides evidential support for a belief. The mere existence of a logical or probabilistic connection between the evidence and the belief is not sufficient for evidential support. If it were adequate, then all the distant and unseen necessary or probabilistic consequences of one’s justified beliefs would themselves be justified. Since that is clearly unacceptable, one might say instead that if evidence *e* provides epistemic support for proposition *p* for person *S*, then *e* must entail or make probable *p* and *S* must ‘grasp’ the connection between *e* and *p*. This reply seems to over-intellectualize the situation, since people seem not to grasp such matters routinely, and it invites a troublesome regress if requiring the ‘grasp’ of the evidential connection amounts to requiring the justified belief that *e* supports *p*. There is no generally accepted view of what is necessary or sufficient for epistemic support.”³⁹²

However, this quandary does not affect the insight that evidence is information. Furthermore, if evidence is information, then evidence itself must be subject to the characteristics of suitable and hence valuable information.

- (562) The assertion that evidence is information begs the question as to the nature of physical “evidence”. In this case, it may be useful to distinguish between “raw evidence” in the form of data representing concrete circumstances or events, and evidence as such, which is the information derived from that data by users or recipients. The concrete circumstances and events (which Mautz and Sharaf would term “natural evidence”)³⁹³ themselves represent neither “raw evidence” nor evidence as such until perceived by the party gathering or receiving the “raw evidence”. The circumstances or events themselves would then either be relevant or irrelevant and lead to the creation of “raw evidence”, but would not constitute evidence.

³⁹² J. Dancy and E. Sosa, eds., p. 121

³⁹³ D.M. Barnes, p. 12

- (563) The concept of raw evidence is very similar to the concept of “facts” as defined by Barnes in his study “Value-For-Money Audit Evidence”.³⁹⁴ On the other hand, since evidence – as opposed to raw evidence – represents information used to confirm or refute an assertion, the concept of evidence as used in this Paper is very close to the concept of “findings” as used by Barnes.³⁹⁵ Evidence and conclusions should also be distinguished from “procedures”, which can be defined as the means by which evidence is obtained and conclusions are drawn and communicated.³⁹⁶
- (564) The second question (is only evidence that supports a conclusion by the practitioner in his or her report assurance evidence, or should the definition be broader than this?) concerns the nature of evidence in relation to an assurance engagement. Pursuant to Section 3 Part B Chapter III of this Paper, the objective of an assurance engagement is to convey an opinion or conclusion with a certain level of assurance on the conformity of the subject matter with identified suitable criteria. Given the relationship between engagement risk and assurance developed in Section 4 Part B of Chapter IV, in an assurance engagement the conveyed opinion or conclusion is subject to a certain level of engagement risk inversely related to particular level of assurance. Furthermore, engagement risk is limited to the risk of incorrect acceptance and generally excludes the risk of incorrect rejection: hence, engagement risk is the risk that the practitioner comes to the conclusion that the subject matter conforms with the identified suitable criteria when in fact the subject matter does not do so.
- (565) This implies that in an assurance engagement practitioners reduce the risk that they conclude that the subject matter is in conformity with the criteria when in fact it is not. Consequently, practitioners would seek evidence that the subject matter is not in conformity with the criteria; they would not seek evidence that the subject is in conformity with the criteria. As a result, practitioners would direct their engagement procedures to detect the nonconformity of the subject matter with the criteria rather than to support the conformity of the subject matter with the criteria. Of course, if the evidence does not support the nonconformity of the subject matter with the criteria at the specified level of risk the practitioner is in a position to conclude that the subject matter conforms to the criteria by eliminating alternative assertions to those that the responsible party maybe seeking to support.
- (566) This means that practitioners are more concerned about evidence that does not support the conformity of the subject matter with the criteria than evidence that does and that the former is evidence the practitioner ought to use in drawing conclusions about the conformity of the subject matter with the criteria. In other

³⁹⁴ D.M. Barnes, p. 8

³⁹⁵ D.M. Barnes, pp. 9-10

³⁹⁶ see D.M. Barnes, p. 28, for a similar definition of “procedures”, but which does not include procedures for drawing conclusions or reporting these.

words, engagement procedures would be directed towards obtaining evidence that the practitioner ought to use to detect nonconformity of the subject matter with the criteria. Practitioners should be much more concerned about information that they ought to have (and may not) that may suggest nonconformity of the subject matter with the criteria than the information that they have obtained that suggests that the subject matter is in conformity with the criteria! This perspective is also consistent with an appropriate degree of professional scepticism.

- (567) Therefore, if evidence is essentially any information that can reasonably be expected to contribute to the confirmation or refutation of an assertion, then assurance engagement evidence would be any information that a practitioner may be reasonably expected to use to contribute to the confirmation or refutation of an assertion – whether or not the practitioner actually based his or her opinion or conclusion on that information. From this point of view, the definition of evidence for an assurance engagement should be any information that the practitioner may reasonably be expected to obtain to draw conclusions on which to base the overall conclusion.
- (568) When a practitioner obtains evidence to support his or her conclusions, there are two aspects of evidence that need to be considered: its sufficiency (adequate quantity) and its appropriateness (adequate quality). ISA 500.07 uses the sufficiency-appropriateness paradigm for evidence and relates appropriateness to the relevance of the evidence to particular assertion and its reliability.³⁹⁷ Likewise, ISA 100.53 uses this paradigm and points out that the two concepts are interrelated in practice, since considerations of quality may effect considerations of the required quantity and vice-versa.³⁹⁸ This standard also maintains that “...the quality of evidence available to the practitioner will be affected by the nature of the subject matter and the quality of the criteria, and also by the nature and extent of the procedures applied by the practitioner.”³⁹⁹ Furthermore, whether or not evidence is determined to be sufficient and appropriate is regarded as a matter of professional judgement in the standard.⁴⁰⁰
- (569) Consistent with the IFAC approach, AU §326 speaks of “sufficient competent evidential matter”.⁴⁰¹ Competent evidence is defined as being both valid and relevant.⁴⁰² Interestingly, both AT §100 and §101 speak only of “sufficient evidence “ to provide a reasonable basis for the conclusion in the report,⁴⁰³

³⁹⁷ IFAC 2001, ISA 500.07

³⁹⁸ IFAC 2001, ISA 100.53

³⁹⁹ IFAC 2001, ISA 100.53

⁴⁰⁰ IFAC 2001, ISA 100.53

⁴⁰¹ AICPA 2001, AU §326.01

⁴⁰² AICPA 2001, AU §326.21

⁴⁰³ AICPA 2001, AT §100.40 and AT §101.51

whereas the treatment in the CICA Handbook⁴⁰⁴ and the APB Statements of Auditing Standards⁴⁰⁵ are consistent with the treatment in ISA 500 and 100.

- (570) At this stage, however, it may be useful to distinguish between the evidence actually acquired to support the overall conclusion as opposed to the evidence that the practitioner should have obtained or reasonably could have been expected to obtain. The former could be termed “engagement evidence”, whereas the latter is more aptly named “sufficient appropriate engagement evidence”. Using a measurement theory perspective, the sufficiency of evidence can best be described in terms of its degree of comprehensiveness and completeness, whereas the appropriateness of evidence is closely related to the other factors determining the suitability of information.
- (571) **In conclusion, evidence is information, which cannot be segregated from the state of mind of the recipient or user. Evidence should therefore be distinguished from raw evidence (data about events and circumstances) arising from events and circumstances and the events and circumstances themselves. Since evidence represents information, evidence is subject to the characteristics of suitable and hence valuable information. Furthermore, evidence is information that supports the beneficial nature of other information. In the context of an assurance engagement, a practitioner should obtain sufficient appropriate engagement evidence, which represents any information that the practitioner may reasonably be expected to obtain to draw conclusions on which to base the overall opinion. Engagement evidence, on the other hand, represents the evidence actually obtained in a particular engagement.**

3. THE RELATIONSHIP BETWEEN EVIDENCE, SUBJECT MATTER AND CRITERIA

Issue: What is the relationship between evidence, subject matter and criteria?

- (572) In the previous two Parts of this Chapter the close relationship between subject matter and criteria was examined. The question naturally arises as to what the relationship between evidence and two other main elements of an assurance engagement – subject matter and criteria – is. It was noted in the previous two Parts of this Chapter that assertions – and hence information – about the subject matter are generated through the application of the criteria to the subject matter. The previous Section concludes that evidence is information (even if information that can reasonably be expected to contribute to the confirmation or refutation of another assertion or information). Therefore, it is

⁴⁰⁴ CICA 2001, *Handbook Vol. I*, Section 5300.01 and .15 and Section 5025.56 - .57

⁴⁰⁵ APB 2002, *Auditing and Reporting*, SAS 400.02 and .04

apparent that evidence is generated by the application of the criteria to the subject matter.

- (573) At this stage, it may be useful to try to differentiate among a number of concepts related to evidence so that the limitations of the concept of evidence in general can be understood more clearly. Some of these concepts have already been introduced in the previous Sections of this Part, but their mutual relationship and their relationship with other related evidence concepts may not be clear. The previous Section introduced the concept of “events and circumstances” as a basis for raw evidence. Strictly speaking, events and circumstances may represent any subject matter, or its properties, or indicants and manifestations thereof. It may, however, be useful to distinguish between potential events and circumstances and actual events and circumstances. Potential events and circumstances are any subject matter, or its properties, or indicants or manifestations thereof that could possibly exist for a given class of subject matter. In other words, the criteria defining limitations on properties or its indicants or manifestations for a particular class of subject matter also by extension define the possible events and circumstances that can exist in relation to that class of subject matter. For example, the criteria set forth by a financial reporting framework define those events and circumstances that can exist in relation to the class of subject matter “financial statements” and its properties, indicants and manifestations.
- (574) Actual events and circumstances, on the other hand, encompass the matter subject to the assurance engagement or its properties, or indicants thereof, the measurement of which, or the manifestations of these representing measurement outcomes, that lead to the creation of raw evidence. The distinguishing difference between potential and actual events and circumstances is that the former relate to those that can exist for a given class of subject matter, whereas the latter relate to those that do exist for a specific subject matter that is a member of that class. The concept of actual events and circumstances is closely related to that of raw evidence, which is data gathered to represent certain aspects (properties, indicants, or manifestations) of events or circumstances by measuring these using the criteria. There are, however, four different concepts of raw evidence: potential raw evidence, available raw evidence, sufficient appropriate engagement raw evidence and engagement raw evidence.
- (575) Potential raw evidence is the data that could potentially be gathered to represent certain aspects (properties, indicants or manifestations) of potential events or circumstances by measuring the properties or indicants using the criteria. In other words, potential raw evidence represents the data potentially available for a given class of subject matter. Available raw evidence is the data that can be gathered to represent certain aspects (properties, indicants or manifestations) of actual events or circumstances by measuring the properties or indicants using the criteria. Hence, available raw evidence is that which it is

possible to obtain by applying the criteria to the specific subject matter in question.

- (576) The definition of available raw evidence can be contrasted with the concept of sufficient appropriate engagement raw evidence, which, given the available raw evidence and the requirements of the applicable assurance standards, is the data of sufficient amount and appropriate kind that a practitioner can reasonably be expected to obtain, in a particular assurance engagement as a basis for sufficient appropriate engagement evidence (which will be defined below), to represent certain aspects (properties, manifestations and indicants) of events or circumstances by measuring properties or indicants.
- (577) However, the raw evidence available does and the evidence that should be obtained may vary from the raw evidence actually obtained, since assurance engagements are generally not performed using 100 % testing and sometimes practitioners obtain more or less evidence than required or obtain evidence of greater quality or of lesser quality than required. The raw evidence actually obtained in an assurance engagement, would be termed “engagement raw evidence”. Therefore, engagement raw evidence is the data that has actually been gathered in an assurance engagement to represent certain aspects (properties, indicants or manifestations) of events or circumstances by measuring the properties or indicants using the criteria. While raw evidence is related to the data gathered about aspects of events and circumstances, based on the examination of the nature of evidence in the previous Section, evidence represents any information derived from raw evidence that contributes to the confirmation or refutation of assertions about certain aspects of these events or circumstances.
- (578) There are four evidence concepts that can be distinguished: potential evidence, available evidence, sufficient appropriate engagement evidence and engagement evidence. These are outlined below.
- (579) Potential evidence is the evidence that could potentially be derived from potential raw evidence to contribute to the confirmation or refutation of assertions about certain aspects of potential events or circumstances. In other words, potential evidence represents the evidence that could potentially be gathered for a class of subject matter. Available evidence is the evidence that can be obtained about actual events or circumstances by gathering raw evidence about these. Sufficient appropriate engagement evidence represents the evidence that a practitioner can reasonably be expected to obtain from the raw evidence under the assurance standards to draw conclusions on which to base the overall opinion: Engagement evidence is the evidence that a practitioner has obtained in a particular engagement to draw conclusions that support the overall conclusion expressed.
- (580) In summary, one can therefore identify the following evidence concepts:

events or circumstances: any subject matter, or its properties, or indicants or manifestations thereof

potential events or circumstances: the subject matter or its properties, or indicants or manifestations thereof, that could possibly exist for a given class of subject matter

actual events or circumstances: the matter subject to the assurance engagement or its properties, or indicants thereof, the measurement of which, or the manifestations of these representing measurement outcomes, that lead to the creation of raw evidence

raw evidence: the data that is gathered to represent certain aspects (properties, manifestations and indicants) of events or circumstances by measuring these using the criteria

potential raw evidence: that data that could potentially be gathered to represent certain aspects (properties, manifestations and indicants) of potential events or circumstances by measuring these using the criteria

available raw evidence: the data that can be gathered to represent certain aspects (properties, manifestations and indicants) of events or circumstances by measuring these using the criteria

sufficient appropriate engagement raw evidence: given the available raw evidence, the data of sufficient amount and appropriate kind that a practitioner can reasonably be expected to obtain, in a particular assurance engagement as a basis for sufficient appropriate engagement evidence (see below), to represent certain aspects (properties, manifestations and indicants) of events or circumstances by measuring properties or indicants

engagement raw evidence: the data that has actually been gathered in an assurance engagement to represent certain aspects (properties, indicants or manifestations) of events or circumstances by measuring properties or indicants using the criteria

evidence: any information derived from raw evidence that contributes to the confirmation or refutation of assertions about certain aspects of events or circumstances

potential evidence: the evidence that could potentially be derived from potential raw evidence to contribute to the confirmation or refutation of assertions about certain aspects of potential events or circumstances

available evidence: the evidence that can be obtained about events or circumstances by gathering raw evidence about these

sufficient appropriate engagement evidence: the evidence that a practitioner can reasonably be expected to obtain to draw conclusions on which to base the overall conclusion

engagement evidence: the evidence that a practitioner has obtained in a particular engagement to draw conclusions that support the overall conclusion expressed

- (581) The following diagram attempts to provide a very rough indication of the relationships between the concepts noted above:

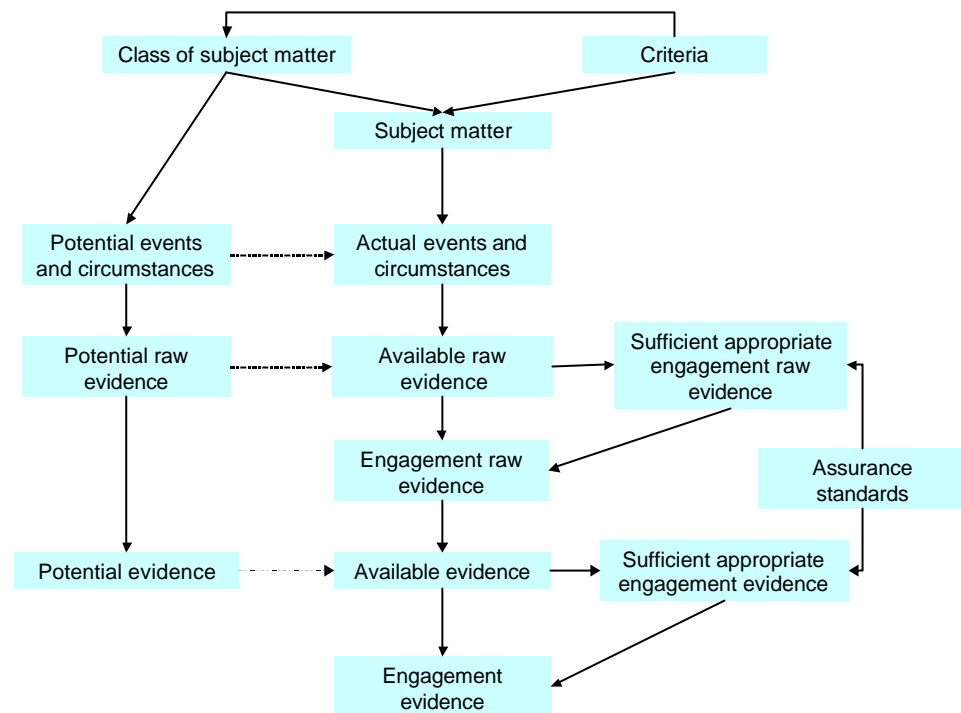


Diagram 9

- (582) Evidence should be distinguished from the conclusion reached using that evidence. Barnes states that conclusions are derived deductively from findings (described as “engagement evidence” in this Paper) using professional judgement.⁴⁰⁶ While conclusions are derived from engagement evidence, it does not appear appropriate to restrict conclusions solely to deductive argument, for logical arguments may also be based on induction or abduction.
- (583) **In conclusion, evidence is a form of information generated by the application of the criteria on the subject matter that contributes to the confirmation or refutation of assertions about events and circumstances in connection with subject matter. There are different concepts of evidence resulting from the interrelationship between classes of subject matter, specific subject matter, and the outcomes of measurement operations. Conclusions are assertions by the practitioner derived from engagement evidence based on logical arguments that apply professional judgement.**

4. SUITABLE EVIDENCE

Issue: When is evidence suitable for an assurance engagement?

⁴⁰⁶ D.M. Barnes, pp. 9-10

- (584) Section 2 asserts that evidence is information and that therefore evidence is subject to the characteristics of suitable and hence valuable information. The question that needs to be asked is whether there are any additional requirements for evidence beyond those applicable to other information for evidence to be suitable. Even if there are no additional requirements, there may be certain aspects relating to evidence embodied in the characteristics of suitable information might require special emphasis or consideration. For example, in the case of suitable criteria, one consideration is that these be available not only to the practitioner, but also to the users. There may be similar aspects requiring emphasis or consideration for evidence.
- (585) Section 7 Part B addressed the notion that for given criteria, not only the subject matter must be sufficiently suitable to perform an assurance engagement, but also the degree to which the properties represent valid properties of that subject matter, the indicants valid measurements of the properties, and the manifestations valid measurement outcomes of the properties and indicants. This leads to the suggestion that, to some degree, evidence concerning properties, indicants and manifestations represents valid evidence of these using the criteria. The same applies to criteria, which must also be susceptible to evidence gathering procedures: a prerequisite for the application of the criteria would be that the evidence concerning the content of the criteria must also be sufficiently valid. Of course, a prerequisite for valid evidence is that the measurement process involved in each of these cases is valid.
- (586) This line of argument would also apply to the evidence concepts leading to engagement evidence as noted in the previous Section (see Diagram 9). In the first instance, the class of subject matter identified represents the criteria determining the membership in that class with sufficient validity. In addition, any particular subject matter identified within that class would need to be a sufficiently valid member of that class and be distinguishable with a sufficient degree of validity from other members of that class based upon additional properties etc. using further criteria. As an aside, any events and circumstances regarded as applying to a certain class of subject matter must be sufficiently valid potential events and circumstances of that class of subject matter. Moreover, the actual events and circumstances identified must sufficiently validly pertain to the subject matter and must validly represent events and circumstances that could potentially exist for that class of subject matter.
- (587) Furthermore, based on the potential raw evidence reflecting potential events and circumstances with sufficient validity, the available raw evidence would need to reflect the actual events and circumstances and the raw evidence that could potentially exist for those potential events and circumstances with sufficient validity. An application of this process to the remainder of Diagram 9 in the previous Section leads to the conclusion that the process for the derivation of engagement evidence is one that is subject to a chain of

sufficiently valid processes that lead to an interlocking chain of sufficiently valid evidence concepts.

- (588) Similar to the suitability of the subject matter for given criteria and the suitability of the criteria for given subject matter under the objective of obtaining suitable information for users, the suitability of evidence for given subject matter and criteria under the same objective would represent a continuum across engagement types and engagements within an engagement type. However, without asserting whether or not there is a difference in threshold for high or low assurance, consistent with the conclusions for the suitability of subject matter and criteria, the suitability of evidence represents a threshold for a particular engagement.
- (589) **In conclusion, the validity of the processes for obtaining evidence and hence the validity of the evidence concepts are of particular importance in assessing the suitability of evidence for given subject matter and criteria under the objective of suitable information for users. Furthermore, suitability of evidence represents a continuum across engagement types and engagements within types, but would act as a threshold within a particular engagement.**

5. CORROBORATING EVIDENCE

Issue: What is the nature of corroborating evidence?

- (590) Based on the dictionary definition of the word corroborate, corroborating evidence would be evidence that strengthens, confirms or supports something.⁴⁰⁷ A legal definition of corroborating evidence is “Evidence that differs from but strengthens or confirms other evidence (esp. that which needs support).”⁴⁰⁸ While the legal profession in at least one common law jurisdiction has addressed the circumstances under which corroborating evidence may be required,⁴⁰⁹ other than the requirement that it be different than the evidence that it supports inherent in the above-noted legal definition, no specific requirements for the nature of corroborative legal evidence appear to have been set forth.
- (591) Corroborating information that is not evidence should be distinguished from corroborating evidence. Whereas corroborating information that is not evidence is used in conjunction with other information for comparability purposes (see Diagram 5 in Part A of this Chapter) to increase the qualitative materiality and hence usefulness of the other information to the user, corroborating evidence is used to increase the credibility of the other evidence about information and hence of the information itself. In other words, corroborating evidence relates to

⁴⁰⁷ *Funk & Wagnalls Canadian College Dictionary*, 1989, p. 304

⁴⁰⁸ Garner et al., *Black's Law Dictionary*, Seventh Edition, p. 577

⁴⁰⁹ I.H. Dennis, pp. 485-493

the acquisition of additional assurance about the suitability of evidence about information.

- (592) The first requirement of corroborating evidence is that it strengthens, confirms or supports other evidence (which in turn, supports a particular assertion). Put into terms used in Section 3 of this Part, corroborating evidence is any evidence that contributes to the confirmation of assertions embodied other evidence. If evidence tends to weaken, disclaim, or withdraw support from other evidence or if it is irrelevant, it is not corroborating evidence. However, it is unclear what to strengthen, confirm or support (or contribute to the confirmation of) actually means. Confirmation of information implies that the validity of that information is assured by the confirmation. As was noted in Section 9 of Part A of this Chapter, validity is actually a concept associated with the process by which information is generated, but this does not mean that it may not be useful to speak of the validity of information. Ultimately, however, the validity of information depends upon the process by which it is generated.
- (593) If one speaks of the validity of information being assured by its confirmation, it means that the confirmation by implication “contains” the same assertions as that which it confirms, for if it were by implication to “contain” assertions at variance with those contained in the original information or were irrelevant to that information, the confirmation would not be corroborative. In this sense, the content of corroborating evidence cannot be independent (and in fact would be highly correlated to) of the content of the evidence being corroborated, or the corroborating evidence would not be corroborating. This insight, of course, begs the question as to what value corroborating evidence has if its content is highly correlated to that of the content of the evidence being corroborated. The answer to this quandary is provided by the second requirement of corroborating evidence.
- (594) The second requirement of corroborating evidence is that it be different from the information or evidence that it supports. However, the term “different” does not adequately describe *how* corroborating evidence ought to be different from the information that it supports. Furthermore, as noted above, the content of the corroborating evidence cannot be much different from that of the information it supports (i.e. the fundamental assertions need to be the same to be supporting), or it would not constitute corroborating evidence. Evidence with the same content derived from the same process as the evidence being corroborated would not constitute corroborating evidence because both the evidence’s content and the process leading to its generation would be highly correlated and hence interdependent with the evidence being corroborated: the corroborating evidence would not be “different” from the evidence being corroborated in any way.
- (595) Since, as noted above, the content must “contain” the same assertions to be corroborating, then the difference between the corroborating evidence and that being corroborated must be due to a process used to generated the

corroborating evidence that is different from that used to generate the evidence being corroborated. Hence, when speaking about the corroborating evidence being different, it cannot relate to the content of the information, but, as noted above, must then be related to the validity of the process used to generate the valid information. Furthermore, the process used to generate the corroborating evidence must lead to results that are highly correlated with those of the process used to generate the evidence being corroborated when measuring the same properties of a particular subject matter and both of these measurement processes are valid. In other words, the measurement results or manifestations of measurements of the same properties must be the same using different processes if these processes are valid.

- (596) On the other hand, the process used to generate the corroborating evidence must lead to results that are highly negatively correlated with those of the process used to generate the evidence being corroborated when measuring the same properties of a particular subject matter but one of these measurement processes is not valid (or sufficiently valid). In other words, the measurement results or manifestations of measurements of the same properties must be different using different processes if one of these processes is not valid. This means that the information generated by the different process used to obtain corroborating evidence would only be valuable to the extent that the processes are independent of one another so that they can lead to different results if one of these processes is not valid. In a sense, a corroborating process serves to confirm the validity of the process used to obtain the original evidence.
- (597) Of course, if both the original and corroborating processes are invalid in the same way, the confirmation obtained by the corroboration is valueless, but in this case, it may be argued that the two processes are not really independent of one another. If both the original and corroborating processes were invalid but in different ways (in which case they could be considered to be independent of one another), the fact that they reach different results would alert the measurer that either one or the other processes (or even both) are invalid.
- (598) **In conclusion, corroborating evidence is any evidence that contributes to the confirmation of assertions embodied in other evidence. For evidence to be corroborating, it must at least by implication “contain” the same assertions as the evidence being corroborated, but the process to obtain the corroborating evidence must be independent of the process to obtain the evidence being corroborated. If the process used to obtain the evidence being corroborated and the corroborating evidence lead to different results, the measurer is alerted to the fact that one or the other or both processes are not sufficiently valid.**

6. PERSUASIVENESS AND CONCLUSIVENESS OF EVIDENCE

Issue: What is the difference between persuasive and conclusive evidence and what do these terms mean?

- (599) In Chapter IV Part C Section 3 this Paper mentions that the greater quality of evidence required by courts of common law in the major common law jurisdictions compared to that generally required for audits of financial statements probably accounts for the fact that auditing and assurance standard setters state that audit or assurance evidence is generally persuasive rather than conclusive (or, pursuant to US GAAS, convincing). The reference to the term “convincing” in US GAAS was related to the legal concept of “clear and convincing evidence”, which, lies somewhere between the preponderance of the evidence and beyond any reasonable doubt. In Section 5 Part C Chapter IV, clear and convincing evidence is legally defined as indicating that the thing to be proved is highly probable or reasonably certain and that this represents a greater burden than preponderance of the evidence, the standard applied in most civil trials, but less than evidence beyond any reasonable doubt, the norm for criminal trials. Consequently, in those Sections mentioned, the Paper concludes that the view that audit evidence is persuasive rather than conclusive (or convincing, in the U.S.) in connection with the legal meaning of clear and convincing evidence. This suggests that an auditor need not necessarily obtain clear and convincing evidence to support an audit opinion if it were not considered reasonable in the circumstances.
- (600) In this sense, persuasiveness and conclusiveness relate to the degree to which the evidence supports certain information or a particular assertion – that is, to what degree the evidence adds credibility (assurance) to that information or assertion. Of course, the more suitable and credible the evidence, the more that evidence will add credibility to that information or assertion.
- (601) **In conclusion, conclusive evidence is that which is clear and convincing, whereas persuasive evidence represents only the preponderance of the evidence. This would mean that evidence that is less than persuasive does not support an assertion with at least the preponderance of the evidence. Persuasiveness and reasonableness relate to the degree to which evidence supports certain information or a particular assertion by adding credibility thereto: the more suitable and credible the evidence, the more that evidence will add credibility to that information or assertion.**

7. TYPES OF EVIDENCE AND THEIR SUITABILITY AND RELATED ASSURANCE

Issue: Are different types of evidence of different suitability and hence do they yield differing levels of assurance?

- (602) Evidence can be characterised by nature as either quantitative or qualitative. Furthermore, ISA 500.15 identifies different types of audit evidence by source (internal or external) and medium (visual, documentary or oral) and asserts that the reliability of evidence is, depending upon the circumstances prevailing for an individual engagement, influenced by its type⁴¹⁰. Furthermore, the following generalisations are made to assist in assessing evidence reliability:
- “- Audit evidence from external sources ... is more reliable than that generated internally.
 - Audit evidence generated internally is more reliable when the related accounting and internal control systems are effective.
 - Audit evidence obtained directly by the auditor is more reliable than that obtained from the entity.
 - Audit evidence in the form of documents and written representations is more reliable than oral representations.”⁴¹¹
- (603) ISA 100 adopted these generalisations for assurance evidence.⁴¹² Similar generalisations were made for audit standards in Canada⁴¹³ and both audit and attestation standards in the U.S.⁴¹⁴ These generalisations were also included in the UK Statement of Auditing Standards No. 400.16.⁴¹⁵ The question that needs to be asked in this respect is whether these assertions reflect generalisations that are applicable for a broad range of assurance engagements.
- (604) There is some question as to whether evidence from external sources is more reliable than that from internal sources. In fact, this question may be asked even for audit evidence obtained in an audit of financial statements. For example, is evidence in the form of third-party confirmations of accounts receivable balances more or less reliable as evidence of existence than internally generated evidence? This may depend upon the reliability of the accounting system relative to that of the entity being audited and upon whether the third party has an interest in confirming in a biased manner – usually biased in a direction opposite to that of the entity being audited. In this sense, the application of this generalisation is hard to understand. Rather than being more reliable than internally generated evidence, third-party confirmations may represent either independent corroborating evidence or independent evidence that undermines the evidence internally generated (see Section 5 on corroborating evidence. In this sense, stating that evidence from external

⁴¹⁰ IFAC 2001, ISA 500.15

⁴¹¹ IFAC 2001, ISA 500.15

⁴¹² IFAC 2001, ISA 100.54

⁴¹³ CICA 2001, *Handbook Vol. I*, Section 5.300.20

⁴¹⁴ AICPA 2001, AU §326.21, AT §100.41 and AT §101.52

⁴¹⁵ APB 2002, *Auditing and Reporting*, SAS 400.16

sources is more reliable than that internally generated does not appear to be an appropriate generalisation.

- (605) The assertion that audit evidence obtained directly by the auditor is more reliable than that obtained from the entity may also be questionable. The evidence gathered by the auditor may be subject to sources of error (measurer or instrument error or an imprecise measurement operation) to which the evidence obtained by the entity may not be subject to the same degree. On the other hand, the evidence gathered by the entity may be subject to measurer error (intentional bias, for example) to which the evidence gathered by the auditor may not be subject. The question, in this case, is one of weighting the relative strengths of the sources of error. Certainly, from an auditor point of view, evidence obtained directly by the auditor has more credibility to the auditor than evidence obtained from other parties.
- (606) There is also some question as to whether documentary evidence is generally more reliable than oral evidence. Certainly, documentary evidence tends to be more stable and equivalent (see the definitions of these terms in the last Section of Part A of this Chapter) than oral evidence, but it is not necessarily more accurate or precise. In other words, documentary evidence may be more reliable in some respects than oral evidence, but oral evidence is not generally less reliable than documentary evidence in other respects.
- (607) Another issue is the relative reliability of quantitative and qualitative information. In the Report on the Issue Arising from Exposure Drafts of the International Standard on Assurance Engagements attached to ISA 100, it is noted that, all else being equal, a higher level of assurance can be obtained for quantitative compared to qualitative subject matter.⁴¹⁶ A similar position is maintained in ISA 100 when discussing criteria.⁴¹⁷ The IFAC Report on The Determination and Communication of Levels of Assurance Other than High suggests that the extent to which qualitative subject matter can be converted into quantitative subject matter without limiting the relevance of the engagement, will determine the level of assurance that can be obtained.⁴¹⁸
- (608) An closer examination of these assertions leads to the conclusion that such faith in quantitative information is misplaced: the criteria for determining classes within subject matter that allow numerical computation are invariably qualitative in character. Consequently, quantitative evidence is only as good as the qualitative criteria applied to create it. On this basis, there is not reason to suppose that generally qualitative evidence has any less reliability than quantitative information. The application of numerical techniques, however,

⁴¹⁶ IFAC 2001, ISA 100 Appendix: Report on the Issue Arising from Exposure Drafts of the International Standard on Assurance Engagements, par. 10 (a)

⁴¹⁷ IFAC 2001, ISA 100 Appendix: Report on the Issue Arising from Exposure Drafts of the International Standard on Assurance Engagements., par. 100.10 (b)

⁴¹⁸ IAASB of IFAC 2002, *Study 1*, p. 114

often tend to suggest greater reliability than may be justified. Certainly, numerical techniques may allow greater stability and equivalence than qualitative techniques – but only to the extent that the qualitative considerations underlying the application of the quantitative techniques are validly applied.

- (609) **In conclusion, there are different types of evidence that can be classified by nature (qualitative or quantitative), source (internal or external) and medium (visual, oral or documentary). The relative reliability of these depends heavily upon the individual circumstances of the engagement. Consequently, generalisations in these matters ought to be avoided.**

8. AUDITABILITY, MEASURABILITY, AVAILABILITY AND ACCESSIBILITY OF EVIDENCE

Issue: What are the requirements for auditability of evidence and how do these relate to measurability, availability and accessibility of evidence?

- (610) Auditability is not a concept that is generally addressed in auditing, assurance or attestation standards, but some standards do set the requirement that the subject matter be such that it is susceptible to evidence gathering procedures,⁴¹⁹ which presumably may be considered to be related to “auditability”. Both Power and Smieliauskas view auditability as relating to measurability.⁴²⁰ The question then arises as to what measurability is.
- (611) AT §101.24 defines measurability of criteria in terms allowing reasonably consistent measurements, qualitative or quantitative, of subject matter,⁴²¹ but this view does not appear satisfactory given the closeness of the definition to certain aspects of reliability discussed in the Section 9 of Part A of this Chapter. In that discussion, it was noted that the reliability factors (stability, equivalence, internal consistency, accuracy, precision and refinement) reflect the requirements for measurability, whereas the security concept represents a prerequisite for appropriate measurement and reporting. The sources of error represent the limitations on measurability. Given this interrelationship between these concepts, measurability is an expression of the ability to measure an entity with sufficient reliability so that any measurement undertaken can be valid and hence valuable to the user of the information derived from such measurements. In other words, measurability is inextricably linked to reliability.
- (612) This, however, is a very narrow concept of measurability, which does not incorporate a number of other concepts that were identified in Section 9 of Part A. It should be recognised that just because an entity is measurable does not mean that its measurement would necessarily lead to a valid measurement and

⁴¹⁹ IFAC 2001, ISA 100.21

⁴²⁰ W.J. Smieliauskas, p. 14

⁴²¹ AICPA 2001, AT §101.24

hence be “auditable” (the validity concepts other than reliability would also need to be fulfilled). Furthermore, it may be hard to argue that evidence is auditable if theoretically measurable, but not available. In other words, two other concepts other than just measurability may need to be incorporated into the concept of auditability: availability and accessibility. Hence, auditability is a concept that appears to be much broader than just measurability. Ultimately, if evidence cannot be obtained at reasonable cost so that the marginal benefits of that evidence supporting particular assertions exceeds the marginal costs of obtaining that evidence and reporting the conclusions drawn therefrom, then a particular subject matter for given criteria may not be considered auditable. The same applies to the ethical constraints that may be applied. Hence, a particular subject matter for given criteria would be considered auditable only if sufficiently suitable evidence can be obtained. The requirements for suitable evidence are discussed in Section 4 of this Part.

- (613) Section 9 of Part A of this Chapter also discusses the concepts of availability and accessibility of information or evidence. The concepts as discussed there would be applicable to evidence as described in this Part.
- (614) **In conclusion, the auditability of subject matter for given criteria depends upon whether sufficiently suitable evidence can be obtained. Measurability is a concept that describes whether sufficiently reliable evidence or information can be obtained through the measurement process. Availability and accessibility are concepts relating to information and hence evidence as described in Section 9 of Part A of this Chapter.**

9. THE EFFECT OF THE QUANTITY AND QUALITY OF EVIDENCE OBTAINED ON THE LEVEL OF ASSURANCE OBTAINED

Issue: How does the quantity and quality of evidence obtained affect the level of assurance obtained in an assurance engagement?

- (615) There appears to be a common presumption among standard setters that the quality of evidence must be appropriate (“competent”, in the U.S.) and quantity of evidence sufficient to be able to reach a conclusion or form an opinion. This is exemplified through the treatment of evidence in the ISA⁴²², the AU⁴²³ and AT (which, however, only speak of sufficiency)⁴²⁴, the CICA Handbook⁴²⁵ and the APB Statements on Auditing Standards.⁴²⁶ Furthermore, most standard setters recognise that either the nature of evidence can be of lesser quality for an engagement of lesser assurance compared to that required for an audit or high

⁴²² IFAC 2001, ISA 500.02 and 500.07; ISA 100.52 and 100.53

⁴²³ AICPA 2001, AU § 326.01, .21 and .23-.24

⁴²⁴ AICPA 2001, AT §100.40; AT §101.51

⁴²⁵ CICA 2001, *Handbook Vol. I*, Sections 5300.01 and .09 and 5025.56-.57

⁴²⁶ APB 2002, *Auditing and Reporting*, SAS 400.02 and 400.04

assurance engagement or that a reduced quantity of evidence is required for an engagement of lesser assurance compared to that for an audit or high assurance engagement. This can be exemplified by the treatment of evidence in these situations in ISA 910.07⁴²⁷, AT § 100.44 and AT §101.55⁴²⁸, CICA Handbook Sections 8100.03 and 5025.12⁴²⁹, and the APB Bulletin 1999/4 Review of Interim Financial Information paragraphs 9 and 10⁴³⁰.

- (616) Smieliauskas appears to subscribe to coherence theories of justification, whereby beliefs are justified by their belonging to a coherent system of beliefs.⁴³¹ This leads to the application of the concept of “confirming evidence”, which provides an explanatory connection between the conclusion and the evidence supporting it with a high epistemic probability.⁴³² By applying Smieliauskas’ system of assurance based on the epistemic probability of the conclusion drawn by the practitioner⁴³³, the confirming evidence increases the assurance obtained by the practitioner by means of uncertainty reduction, which would be measured by comparing the credibility of the assertion being examined after the evidence is obtained with the credibility of the assertion before such evidence was obtained.
- (617) In other words, evidence increases the credibility of assertions. However, this is not a new insight – nor does it explain how more evidence of given quality or improved quality of evidence for a given quantity increases credibility. This quandary is not necessarily solvable. As was noted in Section 2 of this Part, there is no generally accepted view of what is necessary for sufficient epistemic support. In any case, current epistemological literature, which tends to espouse a so-called “default and challenge” model of justification often termed “contextualism”, does appear to take a dim view of the support for coherence theories of justification.⁴³⁴ Nevertheless, even these developments are not uncontroversial. The link between evidential support for an assurance engagement and epistemological contextualism does, however, appear represent an area the may lead to further fruitful academic research.
- (618) Consequently, at the present time practitioners may simply accept the assumption that, all other things being equal, more evidence of given quality or better quality evidence of given quantity may lead to increased assurance. However, it must also be recognised that there are situations where an increase in the quantity of evidence will not offset insufficient quality (due to a lack of validity other than inductive representativeness – see Section 9 Part A of this

⁴²⁷ IFAC 2001, ISA 910.07

⁴²⁸ AICPA 2001, AT §100.44 and §101.55

⁴²⁹ CICA 2001, *Handbook Vol. I*, Sections 5025.12 and 8100.05

⁴³⁰ APB 2002, *Auditing and Reporting*, APB Bulletin 1999/4, par. 9 and 10

⁴³¹ W.J. Smieliauskas, pp. 32-33

⁴³² W.J. Smieliauskas, pp. 78-79

⁴³³ W.J. Smieliauskas, p. 79

⁴³⁴ see M. Williams, pp. 128-137 and pp. 159-172

Chapter); likewise, an improvement in the quality of evidence may not offset insufficient quantity (due to a lack of validity because of insufficient inductive representativeness).

- (619) This does not mean that practitioners are not in a position to “justify” the nature and extent of evidence that they have obtained to support their conclusions for a particular engagement. Rather, practitioners would apply reasoning to develop an argument (by induction, deduction, or abduction – inference to the best explanation) to support the conclusion.⁴³⁵ Important in this respect is the acceptance by the responsible party, users, the courts and others in the profession of the means of argument. As Smieliauskas points out, the conclusions drawn by practitioners must be based on arguments that are acceptable to foreseeable users (notably, the courts) of the conclusions.⁴³⁶ In other words, the arguments applied must have sufficient equivalence (see Section 9 Part A of this Chapter).
- (620) Another issue in relation to the effect of the quantity and quality of evidence on the level of assurance obtained that touches upon the separability of risks problem identified in Chapter IV Part B Section 4 is the nature of the assumptions that practitioners are allowed to make in their arguments supporting their conclusions. As Smieliauskas correctly points out, there is a difference between an assessment and an argument supporting that assessment.⁴³⁷
- (621) The nature of this issue can be demonstrated by an example. An auditor of financial statements has several years’ experience auditing a particular client that has always prepared financial statements without material misstatement. In this particular year, the client presents the financial statements to the auditor. Based upon his or her knowledge of business (including of the client’s internal controls) and the experience from prior years, the auditor may already be in a position to assess that the risk of a material misstatement in the financial statements prior to having performed any audit procedures other than renewal of engagement acceptance procedures is less than 5 %. From a Bayesian audit risk model point of view, the auditor need not perform any more work!
- (622) Of course, this is not acceptable course of action. Rather, in an assurance engagement, a practitioner is required to obtain evidence to support his or her assessment. This begs the question as to why such evidence (and how much – both in terms of quality and quantity) is required. Strictly speaking, the need for evidence to support the assessment arises from question as to with what strength the practitioner needs to make the assessment – i.e., what is the acceptable level of risk that the practitioner’s assessment of engagement risk at less than 5 % is not correct? Ultimately, even the assessment of the strength of

⁴³⁵ For a discussion of arguments and reasoning, see W.J. Smieliauskas, p. 33

⁴³⁶ W.J. Smieliauskas, p. 33

⁴³⁷ W.J. Smieliauskas, p. 34

that assessment, and so forth, may also be questioned, ad infinitum. This quandary leads to two conclusions: 1. the practitioner requires evidence to support his or her assessments and 2. the nature and extent of the required evidential support depends upon the presumptions that the practitioner is allowed to entertain – that is, the presumptions that users (and the courts) are willing to regard as reasonable presumptions (Smieliauskas and Barnes speak of “warrants”, which include presumptions for which there is some official “backing”⁴³⁸). The question with respect to the presumptions that practitioners may generally entertain for a particular kind of engagement is closely connected to an operationalisation of the meaning of “professional scepticism” as described in the treatment of “reasonable” vs. “high” assurance and the presumptions of management’s good faith in Chapter IV Part C Section 4.

- (623) This has major implications for the nature and extent of assurance engagements. For example, in a forensic audit, it is likely that the collective strength of the presumptions that a practitioner may reasonably entertain may be significantly less than in a normal audit of financial statements (e.g., that the documents and records are genuine in the absence of indications to the contrary). In fact, since in a forensic audit the auditor may obtain access to records and other evidence through prosecutors’ subpoenas that would not normally be available to an auditor in a financial statement audit, a practitioner performing a financial statement audit may be forced to entertain presumptions of greater strength than would be acceptable in a forensic audit.
- (624) The less effective the acceptable presumptions are, the more evidential support for the practitioner’s assessment would be required. Furthermore, the more evidential support required, the greater the cost of the engagement. This analysis uncovers the fundamental nature of the discussion of financial statement auditors’ responsibility for fraud: in the end, the public may wish auditors to accept responsibility for detecting material fraud in financial statements (including management fraud in connection with the falsification of documents and collusion with third parties), but auditors may be unable to accept this responsibility without a significant increase in the resources available – both legal and financial. Ultimately, society needs to decide how to allocate its resources in this respect by determining whether the benefits of obtaining additional or higher quality evidence exceed the costs involved.
- (625) The danger for standard setters in this respect is the temptation to add to the procedures required and thereby leave the impression that the likelihood of certain kinds of material fraud not being detected in a financial statement audit is significantly reduced, when in fact a significant reduction would require a financial and legal resources of an order of magnitude greater than that currently available for financial statement audits. This situation can only lead to a widening of the expectations gap.

⁴³⁸ W.J. Smieliauskas, p. 36-37 and D.M. Barnes, p. 22

- (626) The issue as to how much evidence is required to support an assessment also forms the basis for the differentiation between an engagement in which reasonable assurance is obtained as opposed to an engagement in which less assurance than could reasonably be obtained is acquired (limited assurance). Here as well, the nature and extent of procedures to obtain evidence depend upon the presumptions that the practitioner is allowed to entertain.
- (627) For example, unless there are indications of a material misstatement that arise from inquiry and analytical procedures, in a review of financial statements a practitioner must essentially assume that no material fraud has occurred, since neither of these two procedures are likely to be effective in detecting material fraud – especially fraud involving management manipulating the financial statements and underlying records so that the results of analytical procedures look plausible in the circumstances. If a practitioner were not in a position to presume that no such fraud has occurred, then the performance of a review engagement does not appear to be an acceptable proposition. This line of argument suggests that the nature and extent of procedures required for the performance to obtain limited assurance – as opposed to reasonable assurance – will ultimately depend upon how such an engagement is designed in the context of user expectations and practitioner capabilities.
- (628) However, where there are indications of a material misstatement that arise from inquiry and analytical procedures in a review of financial statements, the practitioner is no longer in a position to entertain certain presumptions underlying the limitation of engagement procedures to analysis and inquiry. In these circumstances, the acceptable presumptions are reduced to those of lesser strength, and consequently procedures of a different nature and of greater extent may be required. This conclusion can be extrapolated to all engagements where less assurance than that reasonably obtainable is acquired: if in an engagement leading to limited assurance a practitioner becomes aware that the presumptions supporting the performance of procedures leading to less than reasonable assurance are no longer acceptable, then procedures that would normally only be performed in an engagement leading to reasonable assurance may be required.
- (629) This line of argument may also apply to audits of financial statements and other assurance engagements leading to reasonable assurance. For example, if, during the course of an audit engagement, the presumptions underlying the performance of only procedures normally associated with audits of financial statements can no longer be supported, additional procedures, such as those that might be required in a forensic audit, may be necessary.
- (630) The nature of the presumptions that a practitioner is allowed to entertain also has an impact on the ability of a practitioner to accept engagements. For example, if the practitioner believes that certain presumptions are not applicable, then the practitioner would not be in a position to accept that engagement (e.g., if the practitioner believes that management is not of

integrity, then the practitioner is unlikely to be able to rely on the presumption that the documents are genuine, which may cause the practitioner to conclude that the engagement should not be accepted). Furthermore, the nature of the presumptions that the practitioner may entertain may also affect the ability of the practitioner to change the nature of the engagement once accepted. For example, if in the course of an audit, the practitioner determines that there is a reasonable likelihood of a material misstatement in the financial statements, the practitioner would not be justified in accepting management's request to perform a review rather than audit, since the practitioner would no longer be in a position to defend the presumptions upon which the acceptance of the review engagement is based.

- (631) **In conclusion, it is difficult to provide an epistemologically sound basis for the notion that more evidence of given quality or evidence of better quality for given quantity may increase the level of assurance. However, subject to the circumstances in which an increase in the quantity of evidence will not offset insufficient quality or an improvement in the quality of evidence may not offset insufficient quantity, practitioners must develop arguments that would be sufficiently accepted by the responsible party, users, the courts and others in the profession (i.e., sufficient equivalence) that an increase in the quantity of evidence or its quality leads to an increase in assurance that desired or required. In any case, the nature of evidential support in assurance engagements and its epistemological basis may form an area for fruitful future academic research.**
- (632) **The quality and quantity of evidence required, however, ultimately depends upon the presumptions that the practitioner is allowed to entertain in performing the engagement. Consequently, the nature and extent of procedures required to obtain evidence for engagements leading to reasonable assurance or limited assurance depends upon decisions that society make on a cost-benefit basis on the allocation of resources.**

E. ENGAGEMENT PROCESS

Issue: What is the nature of the engagement process and how does it relate to the other elements of an assurance engagement?

1. DEFINITION OF ENGAGEMENT PROCESS

Issue: How can engagement process be defined?

- (633) The definition of an engagement process depends upon the combination of the definition of the term's two constituent words: engagement and process. The relevant dictionary definitions of the word "engagement" are: "...1. the act of engaging, or the state of being engaged. ... 4. A business appointment. ... 5. A salaried position; employment, especially for a limited period"⁴³⁹. With respect to the first part of the definition (the act engaging or state of being engaged), the word "engage" is defined as follows: "1. To hire or employ (a person); also, to secure or contract for (professional services, assistance, etc.). ... 5. To bind by a pledge or contract, etc."⁴⁴⁰ In short, the common English definition of engagement relates to hiring or employing a person, and in particular to secure or contract for professional services, etc. The legal definition speaks of "A contract or agreement involving mutual promises"⁴⁴¹.
- (634) In Section 1 Part B Chapter III this Paper speaks of an engagement meaning a contract, commission or appointment to provide services, and in Section 2 of that Part a distinction is made between professional and other sorts of engagements. Another issue is under what requirements (legal or ethical) such services must then be rendered. Perhaps the definition of an engagement could be expanded as follows: an engagement is a contract, agreement, commission or appointment by which an entity is bound by law, regulation or applicable ethical requirements to provide services to another entity. A professional engagement, then, is a contract, agreement, commission or appointment by which a professional entity is bound by law, regulation or applicable ethical requirements to provide professional services to another entity.
- (635) The relevant dictionary definitions of the word "process" are: "... 1. A course or method of operations in the production of something 2. A series of continuous actions that bring about a particular result, end or condition".⁴⁴² In this case, there is no need to refer to the legal definition of the word "process", since in legal use that word has a completely different meaning in connection with writs, orders or court proceedings and is therefore not relevant to the use of

⁴³⁹ Funk & Wagnalls Canadian College Dictionary, 1989, p. 438

⁴⁴⁰ Funk & Wagnalls Canadian College Dictionary, 1989, p. 438

⁴⁴¹ Garner et al., *Black's Law Dictionary*, Seventh Edition, p. 549

⁴⁴² Funk & Wagnalls Canadian College Dictionary, 1989, p. 1074

the word “process” in connection with “engagement”.⁴⁴³ There is some question as to whether a process as such needs to be completely continuous, but it is clear that it cannot consist of completely discrete and unrelated actions. In any case, the word “process” in common use appears to refer to a more or less continuous course or method of operation or series of actions to produce something or bring about a particular result, end or condition.

- (636) Based on these definitions, an engagement process for a professional engagement would be a more or less continuous course or method of operation or series of related actions undertaken by a professional entity to fulfil the legal, regulatory or ethical obligations arising from a contract, agreement, commission or appointment to provide professional services to another entity. The question then needs to be asked, what the nature of such a process for an assurance engagement is.
- (637) **In conclusion, an engagement process for a professional engagement is a more or less continuous course or method of operation or series of related actions undertaken by a professional entity to fulfil the legal, regulatory or ethical obligations arising from a contract, agreement, commission or appointment to provide professional services to another entity.**

2. THE NATURE OF AN ENGAGEMENT PROCESS

Issue: What is the nature of an engagement process for an assurance engagement?

- (638) Since audits, reviews and other assurance services are essentially about lending credibility to assertions (which are information) about subject matter (which may itself be information) and these professional services entail gathering evidence (which is information) about these assertions, one may argue that assurance engagements represent a kind of system for conveying information – that is, an information system of some sort. While the kind of information system represented by assurance engagements is very different from a management or business information system, some of the concepts used to define management or business information systems may be applicable to assurance engagements. In any case, the insight that an assurance engagement represents a “system” does suggest that such engagements can be analysed from a systems theory perspective.
- (639) Systems theory essentially deals with “...the behaviour and interactions within and between systems”.⁴⁴⁴ A system is described in a dictionary as an “... 1. Orderly combination or arrangement of parts, elements, etc. into a whole;

⁴⁴³ *Funk & Wagnalls Canadian College Dictionary*, 1989, p. 1074 and Garner et al., *Black’s Law Dictionary*, Seventh Edition, pp. 1222

⁴⁴⁴ Bocij et al., p. 25, 1999

especially, such combination according to some rational principle; any methodical arrangement of parts. 2. Any group of facts, concepts, and phenomena regarded as constituting a natural whole for purposes of philosophic or scientific investigations and construction ... 3. the connection or manner of connection of parts as related to a whole, or the parts collectively, so related; a whole as made up of constitutive parts...”⁴⁴⁵. However, under systems theory, which relates to man-made systems that human beings have established to meet certain purposes, a system can be defined as a methodically or rationally combined arrangement of constitutive components organised to achieve certain objectives.⁴⁴⁶ An information system as conceived within the framework of an assurance engagement, would represent any system designed to convey information about the credibility of assertions in relation to specific subject matter.⁴⁴⁷

- (640) A system organised to achieve certain objectives comprises certain basic components: input, process and output. The input of a system represents the events, circumstances and resources that lead to the objectives that the system seeks to satisfy and enable the process of a system to produce the output to meet those objectives. The system’s process, on the other hand, represents the means by which inputs are transformed into the outputs that meet system objectives. The output represents the product created by the system’s process to meet the objectives of that system.⁴⁴⁸
- (641) In an assurance engagement, the initial input would commonly be a proposal for an assurance engagement, which would include proposed terms of engagement (the proposed subject matter, criteria, and nature, timing and extent of the engagement process, the potential resources available and required from the responsible party and by the practitioner, the potential evidence available, proposed fees, potential liability arrangements, proposed reporting requirements, etc.). Further inputs representing actual rather than proposed engagement terms and actual rather than potential resources would be applied as the engagement process progresses. The output would commonly be the report by the practitioner to the users containing the conclusions drawn from the engagement process. The engagement process represents the means by which the initial and subsequent engagements inputs are transformed into the report by the practitioner to the users.
- (642) The system itself can be distinguished from entities outside of that system. For example, the objectives of the system (called the “system objective”) are not defined by the system itself (that would be circular), for the system would have been established to meet those objectives. Furthermore, systems do not

⁴⁴⁵ *Funk & Wagnalls Canadian College Dictionary*, 1989, pp. 1360-1361

⁴⁴⁶ Compare P. Bocij et al., p. 25

⁴⁴⁷ Adapted from P. Bocij et al., p. 27

⁴⁴⁸ Adapted from P. Bocij et al., p. 26

operate in a vacuum: they operate in an environment that contains events, conditions and other systems. These events, conditions and other systems outside of the system are called the “system environment”. The limits of the system (i.e., the dividing line between what is part of the system rather than part of the environment) is termed the “system boundary”, which also represents the point of interface between the system and its environment.⁴⁴⁹

- (643) This is not to suggest that a system like assurance engagements, such as statutory audits, may not be part of a greater system. For example, a statutory audit may represent a subsystem (any smaller system forming a component system of a larger system comprising more than one subsystem)⁴⁵⁰ for a system of corporate governance or for the system involving the provision of information to capital markets. At the same time, assurance engagements, such as statutory audits, may also represent a suprasystem (any system comprising one or more smaller systems)⁴⁵¹, in that it may be composed of other smaller systems (e.g., statutory audits of subsidiaries). Furthermore, assurance engagement systems may interface (exchanges between a system and its environment or other systems)⁴⁵² with other systems or its environment. For example, the statutory audit may be affected by business valuations done as part of a due diligence engagement to purchase or sell business entities or parts thereof. Moreover, the impact of the environment on the engagement system can be exemplified by the way in which the performance of assurance engagements is affected by the legal environment in which they are performed.
- (644) Generally, information systems such as assurance engagements also contain mechanisms by which their performance can be monitored and controlled⁴⁵³ so that weaknesses in the system can be prevented or detected and corrected. These mechanisms, commonly called “quality controls”, in part represent a subsystem within the engagement system (engagement level controls performed within the engagement system, usually by members of the engagement team), in part represent an interface with another system (engagement level controls performed by a separate control system, such as a professional standards review department and other firm-level controls, or external controls through engagement reviews performed as part of external monitoring or peer review systems) and in part represent a suprasystem within which the engagement operates (capital market or corporate governance enforcement mechanisms). Furthermore, there may be controls operating within the environment that impact upon the operation of the system (e.g., the operation of the legal system).

⁴⁴⁹ Adapted from P. Bocij et al., pp. 26-27

⁴⁵⁰ P. Bocij et al., p. 27

⁴⁵¹ P. Bocij et al., p. 27

⁴⁵² P. Bocij et al., p. 27

⁴⁵³ P. Bocij et al., pp. 25-26

- (645) A system that includes detective and corrective quality controls within the system itself is usually called an “adaptive system”, since it is in a position to monitor and regulate its own performance.⁴⁵⁴ These types of controls would generally include feedback mechanisms⁴⁵⁵ to ensure that information about the operation of the system is provided to the appropriate parties that are responsible for relevant parts of the quality control system.
- (646) **In conclusion, an assurance engagement essentially appears to represent a kind of information system. An engagement process for an assurance engagement forms a part of an assurance engagement system, which is created to meet system objectives (the objectives of an assurance engagement). The engagement process represents the means by which the engagement inputs are transformed into engagement outputs (the report issued by the practitioner to the users). An assurance engagement system operates within the engagement environment, which includes suprasystems that encompass the engagement system as a subsystem and events, conditions and other systems with which an assurance engagement system interfaces through the system boundary. Furthermore, the engagement system may contain one or more subsystems. The engagement system may be subject to quality controls, which may be in a suprasystem of the engagement system, in another system or within a subsystem as part of the engagement process. To the extent that controls are within the engagement system itself, it can adapt its processes to prevent or detect and correct system weaknesses. These types of controls usually include feedback mechanisms.**

3. THE RELATIONSHIP BETWEEN THE ENGAGEMENT PROCESS AND OTHER ELEMENTS OF AN ASSURANCE ENGAGEMENT

Issue: What is the relationship between the engagement process and subject matter, criteria and evidence?

- (647) The previous Section noted that the events, conditions and resources of a particular engagement system (its input) lead to the objectives that the system seeks to satisfy and enable the process of a system to produce the output to meet those objectives. That Section also suggested that in an assurance engagement, the initial input would commonly constitute a proposal for an assurance engagement, which would include proposed terms of engagement (the proposed subject matter, criteria, and nature, timing and extent of the engagement process, the potential resources available and required from the responsible party and by the practitioner, the potential evidence available, proposed fees, potential liability arrangements, proposed reporting

⁴⁵⁴ P. Bocij et al., p. 25

⁴⁵⁵ P. Bocij et al., p. 25-26

requirements, etc.). It is here at the initial input stage, before the process of the engagement is addressed, that the concepts subject matter, criteria and evidence are first addressed and that their relationship to the engagement process first needs to be examined. It should be noted that at the initial input stage of an engagement system, it is the proposed subject matter and criteria and the potential evidence available that represent initial inputs in conjunction with the proposed nature, timing and extent of the engagement process. This approach results from engagement acceptance being considered as forming part of the engagement process.

- (648) At the initial input stage of the operation of the engagement system, the responsible party and the practitioner would need to implicitly or explicitly define the criteria to identify both the proposed class of matter and specific matter to be subjected to the engagement process. Furthermore, at the initial input stage the proposed criteria with which the specific subject will be measured or evaluated (i.e., the proposed class of subject matter for which the practitioner may be asked to determine whether the proposed subject matter is a member) would also need to be identified. The definition of the proposed subject matter and criteria lead to the definition of the potential events and circumstances and hence ultimately to the potential evidence and available raw evidence within that engagement process (see Section 3 of the previous Part).
- (649) Once, the engagement has been accepted, both the subject matter and the criteria and hence the potential evidence and available raw evidence would have been defined by engagement acceptance part of the engagement process: these additional inputs are added to the engagement process as the engagement progresses (see Section 2). Thereafter, the evidence-gathering portion of the engagement process would lead to the acquisition of the engagement evidence (and further inputs) that forms the basis for drawing conclusions about the subject matter using the criteria.
- (650) **In conclusion, the proposed subject matter and criteria and the potential evidence are identified as initial inputs of the engagement system, but the subsequent inputs, such as the specific matter subject to and the criteria applied in the assurance engagement as well as the available raw evidence derived therefrom are defined by the engagement process. Furthermore, during the evidence-gathering portion of the engagement process, the criteria are applied upon the subject matter to gather the engagement evidence (obtained).**

4. THE SUITABILITY OF THE ENGAGEMENT PROCESS: A SYSTEMS APPROACH

Issue: What are the requirements for a suitable engagement process under a systems approach?

- (651) Section 6 of Part B in this Chapter in connection with Section 2 Part C of this Chapter reached the conclusion that subject matter and criteria are suitable when the application of the criteria to the subject matter generates suitable assertions. Evidence, which represents information or assertions, about other information, generated by the application of the criteria to the subject matter is suitable when it meets the characteristics of suitable information (see Section 4 Part D of this Chapter). Since the subject matter, criteria and evidence are generated by the engagement process as part of the engagement system, the suitability of the assertions generated by the engagement process for given subject matter and criteria determines whether the engagement process itself is also suitable. This is consistent with the converse of the conclusions drawn in Section 9 Part A of this Chapter, in which the validity of the engagement process is the prerequisite for the validity of the information generated therefrom. Hence, only a suitable engagement process for given criteria and subject matter can generate suitable engagement assertions, but also conversely, if the engagement assertions generated by the engagement process are not suitable, then the process cannot have been suitable.
- (652) To be suitable, an engagement process must be valid for the given subject matter and criteria. The validity concepts for engagement processes are discussed in Section 9 Part A of this Chapter. Nevertheless, while these requirements explain in abstract terms what is necessary for a suitable process, they do not explain in concrete terms what is necessary for a suitable assurance engagement process. There are two approaches to this issue that may illuminate the concrete requirements for a suitable process. One approach would be to examine the requirements from a systems theory point of view – that is, to determine the requirements for a suitable engagement system and a suitable systems environment so that the engagement process can also be suitable. This approach will be examined in this Section. The second approach is to examine the content of current standards to determine what standard setters have determined would be the requirements for an engagement process and to synthesise general principles from these requirements. This approach will be examined in the following Section.
- (653) From a systems theory perspective, an engagement process can only be suitable if it is embedded within a suitable system. A suitable system, on the other hand, must be part of a suitable suprasystem. For example, the system “statutory audits of financial statements” may not be suitable if the suprasystem in which the system operates, such as the corporate governance suprasystem or the overall suprasystem by which financial information is conveyed to capital markets, is flawed. Furthermore, a system must operate in a suitable environment – that is, those other environmental factors influencing the system should not impair its operation. For example, a contract to provide an assurance service would not be enforceable if the legal environment were such that

contracts are in effect not legally enforced. In this situation, it is unlikely that an assurance engagement system can operate effectively.

- (654) The requirement for a suitable environment also extends to other systems with which the engagement system interfaces – that is, other systems with which the engagement system interfaces also need to be suitable to ensure that their impact does not impair the operation of the engagement system. An example of a system that interfaces with the assurance engagement system “audits of financial statements” is the accounting system of an enterprise: the conduct of an audit is difficult (and in fact may lead to a scope limitation in the auditor’s report for an audit of financial statements) if the accounting system is not operating as effectively as necessary. Nevertheless, however suitable another system may be, if the interface between the assurance engagement system and that other important system is not suitable, then the assurance engagement system cannot be suitable. Therefore, for example, if the accounting system is operating effectively, but its information is not being effectively conveyed to the auditor, then the financial statement audit will not be effective and hence not suitable.
- (655) The effective operation of a system is also predicated upon the existence of a sufficiently suitable “system boundary”. The boundary of a system must be so defined that a system is capable of meeting its objectives as optimally as possible. This means that the scope of the system encompassed by the boundary should not be too small (which would mean that parts of the system vital to meeting its objectives are excluded), nor that the scope of the system encompassed by the boundary be too large (which would result in an unmanageable system, due to its complexity, or a system which encompasses too many subsystems with diverging objectives). In other words, the boundary of the system should cover all of those parts of the system that are dedicated to the system objective, but generally not cover components that also serve other somewhat less related objectives.
- (656) An example of a system boundary not encompassing all of the portions of a system necessary for it to meet its objective might be the exclusion of tests of controls from the engagement system for audits of financial statements. In this case, it may be very difficult to co-ordinate the nature, timing and extent of tests of controls with the knowledge of internal control obtained as part of the knowledge of business and with the nature, extent and timing of substantive procedures to reduce audit risk to an acceptably low level. Consequently, it is conceivable that a more optimal operation of the engagement system as a whole might be achieved by placing tests of controls within the engagement system.
- (657) An example of a system boundary encompassing a system scope that is too large might be the inclusion of an opinion on environmental information not included in the financial statements as part of the engagement system for a financial statement audit. In this case, the opinion on the financial statements

and the opinion on the environmental information represent very different objectives and it may be questionable whether both of these objectives can be organised within a single engagement system without causing the suboptimal operation of one or the other or both. Consequently, in this situation it may be reasonable to consider organising two separate engagement systems: one for the financial statement audit and one for the assurance engagement with respect to environmental information. This way, the divergent objectives would not interfere with the operation of each of the systems. Nevertheless, since some of the evidence obtained in the financial statement audit may also represent useful evidence for the assurance engagement on environmental information and vice versa, an effective interface between the two engagement systems should be established.

- (658) It appears reasonable to suggest that to be suitable an engagement system must have a suitable objective, but there is a question as to what that means. One might take the view that for an information system, such as an assurance engagement system, the objective must be directed towards conveying suitable (that is, both valuable and ethical) information to users to meet their particular information needs with respect to assurance about a specific subject matter. Hence, the objective of an assurance engagement system would be to convey suitable information to users that lends credibility to certain assertions about a particular subject matter. Any other objective would likely not be suitable for an assurance engagement system. Whether or not the information is suitable would naturally depend upon the environment surrounding the engagement system (e.g., the needs of users, the events and conditions surrounding the subject matter and criteria, the requirements of the surrounding suprasystems etc.).
- (659) A suitable engagement system would also require suitable engagement input, process and output. The report containing the opinion or conclusion by the practitioner on the subject matter would represent the output of the engagement system. Since this report represents information, the characteristics of suitable information would apply in the determination as to whether the engagement output (the report) is sufficiently suitable. Section 2 of this Part suggests that the initial engagement input for an assurance engagement system would commonly be a proposal for an assurance engagement, which would include proposed terms of engagement (the proposed subject matter, criteria, and nature, timing and extent of the engagement process, the potential resources available and required from the responsible party and by the practitioner, the potential evidence available, proposed fees, potential liability arrangements, proposed reporting requirements, etc.). Each of these would need to be suitable for the input as a whole to be suitable. It was also noted that further suitable inputs would be applied as the engagement process progresses.
- (660) Since the engagement process yields the output (the report), by definition, a suitable engagement process would be one that converts suitable engagement

input into suitable output (the report), but this does not shed light on what the individual requirements for a suitable process are. This issue will be addressed subsequently in the following Section. Nevertheless, it would not be unreasonable to presume that an engagement process is more likely to be suitable if the engagement system contains or is subject to mechanisms by which its performance can be monitored and controlled (i.e., quality controls – see Section 2). These would include engagement-level input (e.g. engagement acceptance procedures), process (e.g., supervision) and output (e.g., partner review) controls within the system, thereby making it a so-called adaptive system, as well as controls exercised through interfaces with other systems (e.g., the use of a professional standards review department or external quality controls, such as peer or monitoring review), through the suprasystem within which the engagement system operates (e.g., enforcement mechanisms within the corporate governance or capital market suprasystems) or through environmental controls (e.g., enforcement through normal legal channels, such as the courts, etc.).

- (661) **In conclusion, it appears that a systems approach to assurance engagements may provide a useful basis for determining the basic and generic requirements for a suitable engagement system and hence a suitable engagement process for an assurance engagement.**

5. THE SUITABILITY OF THE ENGAGEMENT PROCESS: PROFESSIONAL STANDARDS AND BUSINESS PRACTICES

Issue: What are the requirements for a suitable engagement process as outlined in professional standards and business practices?

- (662) The second approach to determining whether an engagement process is suitable would be to apply current professional standards and business practices and analyse whether there may be additional requirements that current standards or business practices may not have addressed. This approach is applied in this Section. A review of current standards (ISA, ISA 100, US GAAS, AICPA Standards for Attestation Engagements, Canadian GAAS, CICA Standards on Assurance Engagements and UK GAAS) suggests that the approaches taken by these standard setters do not significantly vary from one standard setter to another. Furthermore, most auditing textbooks also address the issues associated with the management of engagements not directly related to compliance with standards: these issues are usually subsumed under the term “engagement management”.
- (663) In the widely used U.S. textbook “Montgomery’s Auditing”, engagement planning and management are seen as the initial step of the audit process⁴⁵⁶, even though it is not regarded as “... a separate, isolated, specifically

⁴⁵⁶ V.M. O'Reilly et al., pp. 6-20 – 6-21

identifiable ..." activity.⁴⁵⁷ The textbook views engagement planning and management as covering acceptance of the engagement, setting engagement terms and goals, determination of deadlines and scheduling, planning the use of third parties (experts or other auditors), engagement control, supervision and review, staffing, time budgeting, etc.⁴⁵⁸ Similarly, the Canadian textbook "The External Audit" limits engagement management to staffing, an organised approach, planning, control, reporting to reviewers and review.⁴⁵⁹

- (664) Auditing standards also address engagement management issues as defined in the narrow sense by auditing textbooks. For example, ISA 210 "Terms of Audit Engagements" addresses engagement acceptance issues and other organisational issues,⁴⁶⁰ and ISA 220 "Quality Control for Audit Work" covers quality control policies over staffing, delegation, acceptance and retention of clients and monitoring, as well as staff direction, supervision and review.⁴⁶¹ Furthermore, ISA 300 "Planning" also addresses issues in relation to co-ordination, direction, supervision and review.⁴⁶² US Quality Control Standards and US GAAS deal with similar issues in QC §20, §30 and §40, which cover personnel management, acceptance and continuance of clients and engagements, engagement performance and monitoring,⁴⁶³ and in AU §310.07 (Appointment of the Independent Auditor) and AU §311.11-.14 (Planning and Supervision), respectively. Both UK and CICA auditing standards are basically no different in the overall coverage of these issues.⁴⁶⁴
- (665) Assurance and attestation standards also address engagement management issues. ISA 100.35-.41 address engagement management issues in the traditional sense, including accepting the engagement and agreeing on the engagement terms, quality control and planning and conduct of the engagement.⁴⁶⁵ In the U.S. the Quality Control Standards cover both audit and attestation engagements,⁴⁶⁶ but engagement management issues other than quality control are addressed in AT §100.31-.39 and AT §101.42-.50.⁴⁶⁷ The CICA Handbook Section 5025.46-.50 also touches upon a number of engagement management issues. It should be noted, however, that even though it might be argued that engagement management issues might be of equal – if not greater – importance for assurance or attestation engagements

⁴⁵⁷ V.M. O'Reilly et al., p. 6-21

⁴⁵⁸ V.M. O'Reilly et al., p. 6-22; see also pp. 7-1 – 7-24

⁴⁵⁹ R.J. Anderson, p. 266

⁴⁶⁰ IFAC 2001, ISA 210.07 and ISA 210.12-.16

⁴⁶¹ IFAC 2001, ISA 220.06 and ISA 220.11-.16

⁴⁶² IFAC 2001, ISA 300.09

⁴⁶³ AICPA 2000, *Professional Standards Volume II*, QC §20.07, QC §30 and QC §40

⁴⁶⁴ APB 2002, *Auditing and Reporting*, SAS 140.08, .09 and .17, SAS 200.12 and SAS 240.11-.70; CICA 2001, *Handbook Vol. I*, Sections 5101.A and 5150.02-.07

⁴⁶⁵ IFAC 2001, ISA 100.35-.41

⁴⁶⁶ AICPA 2001, AU §161, AT §100.06-.08 and AT §101.16-.18

⁴⁶⁷ AICPA 2001, AT § 100.31-.39 and AT §101.42-.50

other than audits of financial statements than for such audits, the depth and breadth of coverage of traditional engagement management issues for assurance or attestation engagements is less than the coverage for audits of financial statements. This may be due to assurance and attestation standards being incorporated and hence compressed into a single standard rather than into separate standards, as is the case for standards on audits of financial statements.

- (666) Overall, it appears that both textbooks and standard setters take a rather traditional view of “engagement management”, which is narrower than that which might be suggested by applying modern business administration theory and practice. In particular, when applying risk management and systems approaches, a more comprehensive concept of engagement management may appear to be more appropriate. There are broader and narrower approaches associated with the term “risk management”, which in turn depend upon the risk concept applied.
- (667) A definition of risk used in a risk management textbook reads, “Risk is a condition in which there is a possibility of an adverse deviation from a desired outcome that is expected or hoped for.”⁴⁶⁸ A more recent definition from a book dealing with managing business risk uses the following definition: “...variation in outcomes around an expectation”.⁴⁶⁹ The first definition contains an element of redundancy (a *desired* outcome that is *expected or hoped for*), but adds the notion of hope or desire rather than just expectation, and is narrower than the second by limiting risk to adverse deviations. Furthermore, since sheer impossibility is considered to be an asymptote that cannot be reached in the real world (see Section 2 Part C Chapter IV), there is no need to address the concept of possibility as was done in the first definition. On this basis, a broad definition of risk could be “a condition reflecting variation in outcomes around an expectation or desire”.
- (668) Without analysing the relationship between risk and uncertainty, the distinction of risk from peril and hazard and exposure, and the classifications of risk,⁴⁷⁰ all of which are beyond the scope of this Paper, it is clear that assurance engagements are subject to varying risks – especially since the term “assurance” itself is inextricably linked to the concept of risk (see Section 5 Part B Chapter IV).
- (669) However, it should be recognised that, while a practitioner exercises a profession, a professional accountant in public practice is subject to business risks like a commercial enterprise. While there are varying definitions of

⁴⁶⁸ E.J. Vaughan, p. 8

⁴⁶⁹ P.C. Young and S.C. Tippins, p. 7

⁴⁷⁰ For a discussion of these concepts, see E.J. Vaughan, 1997, pp. 9-24 and P.C. Young and S.C. Tippins, pp. 7-9

business risk in use both in the academic community and in business practice, if one applies the broad definition of risk to businesses, then business risk could be defined as a “condition reflecting variation in business outcomes around an expectation or desire”. Such a definition of business risk would be broader than that generally applied in most literature, which either distinguish risk management from strategic and operations management⁴⁷¹ or limit business risk to conditions that could adversely affect an entity’s ability to achieve its objectives and execute its strategies.⁴⁷² The broader definition of business risk would include the risk that an entity has not formulated objectives that are in consonance with the risk preferences and other desires of stakeholders, the risk that strategies identified and adopted to meet these objectives may not be appropriate and the risk that such strategies are not appropriately implemented (operational risk).

- (670) On this basis, risk management in its broadest sense could be considered an overarching concept that subsumes the various aspects of business management, including stakeholder management and mission/objectives formulation, governance and control, strategic management, performance management, compliance management, risk management (in its narrow sense), operations management, financial management, information management, human resources management, organisational management and marketing management. Using this paradigm, it would appear that in managing assurance engagements, practitioners are managing the risks associated with these engagements.
- (671) Given the conclusion reached in Section 2 of this Part that an assurance engagement may be thought of as a kind of information system and that therefore systems theory applies, engagement management represents the management of the risks associated with an engagement system. In other words, the traditional view of engagement management as currently depicted in auditing textbooks and by standard setters, in which engagement management is considered to be a part of the engagement process is somewhat dated. A more modern perspective would be to consider engagement management to be both a part of the engagement system (engagement-level quality control, for example) and a separate system (e.g., firm-level quality controls and other enforcement mechanisms) by which risks associated with the engagement system are managed. Hence, the engagement system would be adaptive, but not all of the management of risks would take place from within that system.
- (672) Using this model, the engagement process, as part of the engagement system, would still cover those areas currently addressed by both auditing textbooks

⁴⁷¹ P.C. Young & S.C. Tippins, 2001, pp. 19-21

⁴⁷² IAASB of IFAC, *Exposure Draft: Audit Risk – Proposed International Standards on Auditing and Proposed Amendment to ISA 200, „Objective and Principles Governing an Audit of Financial Statements“* (IFAC: New York, 2001), p. 11

and auditing and assurance standards, but it would be placed in its proper context as a part of firm operations, which would then be subject to analysis using operations management concepts and practices. In particular, audit theoreticians and practitioners would properly focus on the appropriate process strategy for different kinds of assurance engagements, which would in turn lead to analysis of such engagements by using common tools like flow diagrams, time-function mapping, process charts and service blueprinting⁴⁷³ to identify the potential to further rationalise assurance engagements from performance, compliance and risk management (narrow focus) perspectives. The identification of the potential to further rationalise assurance engagements would engender service process design considerations, including the appropriate blend of physical layout, human resources and technology inputs. In those cases where a fundamental change in the mix of these inputs may lead to significant potential improvements, engagement process re-engineering may be appropriate.⁴⁷⁴

- (673) Since at present (before the advent of continuous auditing) assurance engagements represent discrete projects (a series of related tasks directed towards a greater output)⁴⁷⁵ that require planning, performance and control, engagement management for particular assurance engagement constitutes project management. Project management comprises three often-overlapping phases: planning (setting goals, defining the project, and team organisation), scheduling (human resources, funds, etc.) and controlling (monitoring the use of resources, the costs incurred, quality and time budgets, change management).⁴⁷⁶
- (674) In the planning phase, a project organisation, which is an organisation formed to ensure that a project receives proper management and attention, is usually headed by a project manager (depending upon the nature and size of the engagement, either an engagement partner or an engagement manager), who is responsible for ensuring that the different activities involved in the performance of the engagement are finished in proper sequence and on time, the project comes within budget, the engagement is performed with the requisite quality, and the staff assigned to the project receive the information they need to perform the tasks delegated to them and are appropriately directed, supervised and reviewed. Once an engagement's objectives have been defined, the engagement is usually broken down into manageable parts; in project management parlance, this could be done by means of a so-called work breakdown structure. By applying a work breakdown structure, an engagement would be divided into major subcomponents, which could be

⁴⁷³ See J. Heizer and B. Hender, pp. 231-246 for a general discussion of process strategy and analysis

⁴⁷⁴ See J. Heizer and B. Hender, pp. 247-251 for a general discussion of service process design and process re-engineering

⁴⁷⁵ Adapted from J. Heizer and B. Hender, 2001, p. 658

⁴⁷⁶ J. Heizer and B. Hender, 2001, p. 658

further broken down into subcomponents and so forth until primary activities can be identified. This kind of breakdown would allow detailed planning and scheduling for human resources, material, funding and technology requirements.⁴⁷⁷

- (675) When scheduling the engagement (“project scheduling” using project management terminology) the engagement partner or manager determines the time required for each activity involved in the performance of the engagement and assess the personnel, material, funding and technology requirements at each stage of the engagement process. Furthermore, such scheduling not only covers the amount of each factor needed, but the requisite quality. For example, the personnel scheduling requirements would also cover the types of skill and experience needed. Assurance engagements tend to be labour intensive, so time budgets are of critical importance. Once the engagement has commenced, engagement progress should be controlled (“project controlling”). This would include control over resources used and costs incurred relative to budget and control over quality, as well as using feedback mechanisms to revise engagement plans and to shift resources based on that revision.⁴⁷⁸ Given the importance of deadlines, time budgets and quality considerations for assurance engagements, progress to date in meeting deadlines, time sheets and the review of the quality of the work performed are particularly significant for control purposes. Nevertheless, the effect of unrealistic deadlines, due to fast closing for audits of financial statements or other factors, on the quality of assurance engagements – both in terms of the assurance obtained and the usefulness of the upon which the assurance has been obtained – should not be ignored.
- (676) There are a number of project management techniques available that could be of use to the management of assurance engagements in the planning, scheduling and controlling phases. These include Gantt Charts, Program Evaluation and Review Techniques (PERT) and the Critical Path Method (CPM), among others. Furthermore, in applying PERT there may be cost-time tradeoffs (known as PERT/COST) that may lead to project management to “crash” (shorten activity time in a network to reduce time on the critical path so total completion time is reduced to meet deadlines⁴⁷⁹) activity times.⁴⁸⁰ The reader is referred to textbooks on operations management or project management for a description of these techniques and their advantages and disadvantages. Overall, it appears that project management concepts and techniques are applicable to assurance engagement management.
- (677) In any case, then, a suitable engagement process is predicated upon suitable engagement management and a suitable engagement system and

⁴⁷⁷ Adapted from J. Heizer and B. Hender, pp. 658-661

⁴⁷⁸ Adapted from J. Heizer and B. Hender, pp. 661-663

⁴⁷⁹ J. Heizer and B. Hender, p. 677

⁴⁸⁰ Adapted from J. Heizer and B. Hender, pp. 661-673, pp. 677-678

environment. Furthermore, a suitable engagement management encompasses suitable risk management of engagement system risks, which would include the establishment of suitable quality control (in supra-systems, other systems or within the engagement system) over the engagement system and process. In addition, the management of an assurance engagement constitutes project management, and therefore the general principles and techniques of operations management for projects apply. Without going into detail, both auditing textbooks and auditing and assurance standard setters appear to have come to a basic agreement of the constituent parts of the engagement process (see the references to the standards and auditing textbooks previously in this Section). A suitable engagement process depends upon the suitability of its constituent parts.

- (678) The basic parts of the engagement process (without addressing quality control considerations that permeate the process) that have been identified by textbooks and standard setters include client and engagement acceptance procedures, agreement of engagement terms with the client, engagement planning, acquisition of evidence, evaluation of evidence, drawing conclusions from the evaluation, and expression of these conclusions in a report. Of course, there may be considerable overlap among these parts of the engagement. Of particular importance for engagement acceptance procedures, agreement of the engagement terms and engagement planning for assurance engagements other than audits of financial statements is the identification and assessment of the suitability of criteria and subject matter and hence the suitability of the properties and indicants being measured. Furthermore, the practitioner would have to assess whether sufficient appropriate evidence would be available for the given subject matter, criteria and engagement process to allow an appropriate evaluation to be made so that reasonable conclusions may be drawn.
- (679) In this connection, it should be noted that the parts of the engagement are completely interdependent, and that one “weak link in the chain” can lead to an unsuitable engagement process. This implies that each of the constituent parts of the engagement process must be suitable for the process as a whole to be suitable. In other words, the client and engagement acceptance procedures must be suitable, the terms of the engagement must be suitable, the engagement must be suitably planned, the assertions generated by the application of the criteria on the subject matter (including properties and indicants thereof) must be suitable, sufficient appropriate evidence must be available and acquired based upon the nature of the criteria and subject matter, the evaluation of the evidence must be appropriate, appropriate conclusions must be drawn from that evaluation and the conclusions conveyed in the report must faithfully represent those drawn in the engagement. If any one of the preceding links in the chain were to break down, the engagement process would cease to be suitable.

- (680) Furthermore, since the determination of the engagement objective, the identification of the criteria and subject matter and the application of the criteria to the subject matter to gain evidence to be evaluated are all part of the engagement process, the validity of the engagement process and hence the suitability of the engagement system and its surrounding environment are the critical factors in the suitability of the assertions generated by that process and the suitability of the conclusions conveyed by the practitioner's report. In other words, the engagement system, the engagement process therein and the environment surrounding the engagement system are the most important elements for a suitable assurance engagement.
- (681) **In conclusion, the traditional view of engagement management as being part of the audit process appears dated. Rather, it would seem more appropriate to regard engagement management as management of the risks associated with the engagement system and its environment where the engagement process is a part of the engagement system. In this context, the efficiency and effectiveness of the engagement process can be analysed by applying principles and techniques used in operations management – in particular with respect to process analysis and design, and process re-engineering. In particular, the concepts and techniques applicable to project management may be useful for the management of particular engagements.**
- (682) A valid engagement process is predicated upon suitable engagement management and a suitable engagement system and environment. Furthermore, suitable engagement management encompasses suitable risk management of engagement system risks, which would include the establishment of suitable quality control (in supra-systems, other systems or within the engagement system) over the engagement system and process. The constituent parts of the engagement process are completely interdependent: consequently, if one of these parts is not valid, the entire process will probably not be valid. Since the determination of the engagement objective, the identification of the criteria and subject matter and the application of the criteria to the subject matter to gain evidence to be evaluated are all part of the engagement process, the validity of the engagement process and hence the suitability of the engagement system and its surrounding environment are the critical factors in the suitability of the assertions generated by that process and the suitability of the conclusions conveyed by the practitioner's report. As a result, the engagement system, the engagement process therein and the environment surrounding the engagement system are the most important elements for a suitable assurance engagement.
- (683) The basic parts of the engagement process identified by textbooks and standard setters include client and engagement acceptance procedures, agreement of engagement terms with the client, engagement planning,

acquisition of evidence, evaluation of evidence, drawing conclusions from the evaluation, and expression of these conclusions in a report. Of course, there may be considerable overlap among these parts of the engagement.

6. THE EFFECT OF THE ENGAGEMENT PROCESS ON THE LEVEL OF ASSURANCE OBTAINED

Issue: How does the engagement process affect the level of assurance obtained by the practitioner?

- (684) In the previous Section, the conclusion had been reached the basic parts of the engagement process as defined by auditing textbooks and assurance and auditing standard setters include client and engagement acceptance procedures, agreement of engagement terms with the client, engagement planning, acquisition of evidence, evaluation of evidence, drawing conclusions from the evaluation, and expression of these conclusions in a report; there may be considerable overlap among these parts of the engagement. The question that naturally arises is how the progress of the performance of the engagement (that is, the progress of the process) effects the level of assurance obtained by the practitioner and that conveyed in his or her report.
- (685) A simplified view of the progression of the engagement process (without taking iterative steps or overlap into account) might describe the progress of the engagement process as follows:
- client and engagement acceptance procedures
 - procedures to reach agreement on the terms of engagement
 - identification of the criteria (and any evidence gathering in relation to the criteria) and definition of the subject matter using the criteria
 - initial condition (available evidence for specific assertions in relation to certain properties of subject matter by applying the criteria)
 - planned evidence gathering procedures
 - applied evidence gathering procedures
 - planned evaluation of evidence using the criteria
 - applied evaluation process
 - planned logical process to draw the overall conclusion from the results of the evaluation
 - applied logical process with which the overall conclusion is drawn

- planned process to report the conclusions drawn
- actual reporting process

- (686) While the above-noted process grossly oversimplifies an assurance engagement process, this depiction does allow some general conclusions to be drawn on the effect of the process on the level of assurance obtained and conveyed. As was noted previously in the Paper, 100 % assurance is not obtainable in the real world. Consequently, 100 % assurance would not be obtainable at any of the above-noted stages in the engagement process. Given the multiplicative nature of a Bayesian perspective on combining cumulative assurance, this implies that assurance must decline as the engagement progresses.
- (687) For example, one could assume that, all other things being equal, 90 % assurance is desired at the end of the evidence gathering process (i.e., prior to the evaluation of the evidence). If a particular piece of available evidence supports the relevant assertions with 95 % assurance, the planned evidence gathering process theoretically allows the acquisition of this evidence with 97 % assurance, and the application of the evidence gathering process actually results in 96 % assurance that the planned evidence gathering process has been appropriately applied, then the actual level of assurance obtained at the end of the evidence gathering process would only be $(0.95 * 0.97 * 0.96) = 88\%$ – not enough! This implies that for a given piece of available evidence, a very high level of assurance must be obtained at each stage in the process to be able to express a high level of assurance in the conclusion.
- (688) This sort of problem can only be alleviated by the acquisition of corroborating evidence that provides additional assurance with respect to the specific assertions embodied in the original evidence. Generally, practitioners plan to obtain corroborating evidence to ensure sufficient assurance is obtained. Furthermore, the engagement process cannot be considered suitable if the desired level of assurance has not been obtained. However, the effect of the engagement process on the cumulative assurance obtained and conveyed and the role of corroborating evidence in this respect to alleviate the problem if declining cumulative assurance has not been addressed in current auditing or assurance standards or in auditing literature. Therefore, this issue should be investigated further by academic research.
- (689) **In conclusion, for a given piece of evidence, cumulative assurance declines as the engagement progresses. Hence, unless corroborating evidence is obtained, a very high level of assurance would need to be obtained with respect to the original piece of evidence at each stage in the engagement process to ensure that the desired level of assurance is obtained and then conveyed so that the engagement process can be considered suitable. These issues have not been addressed either in**

current standards or in auditing literature. Consequently, further academic research in this area may be required.

7. THE EFFECT OF THE ENGAGEMENT PROCESS ON THE USEFULNESS OF THE CONCLUSIONS CONVEYED

Issue: How does the engagement process affect the usefulness of the conclusions conveyed by the practitioner in his or her report?

- (690) In Section 9 Part A of Chapter V, this Paper defined usefulness of information (and hence of conveyed conclusions, which are information) as being determined by three factors: user information needs, the availability of the information and its materiality. Materiality, in turn, is composed of the factors comparability, timeliness and validity. The previous Section addressed the effect of the engagement process on the cumulative level of assurance obtained. However, a level of assurance is always associated with a certain level of usefulness of information – that is, all other things being equal, assurance is inversely related to materiality (and in particular, validity) and hence usefulness of information.⁴⁸¹ Since evidence supporting assertions generated by the application of the criteria to the subject matter in an engagement process is information, it follows that the usefulness of evidence depends upon the engagement process, the criteria identified and applied therein, and the subject matter identified using the criteria.
- (691) The question naturally arises as to how the engagement process as described in the previous Section affects the cumulative validity of the conclusions drawn and conveyed. In particular, the effects of combining validity during the engagement process need to be addressed. This sort of problem might be illustrated by the following simplified example, in which the imprecision of the subject matter and the criteria may lead to greater measurement imprecision.
- (692) A machine produces thin metal pipes that are to be ten meters in length plus or minus 2 millimetres (i.e., the required precision for the pipes to be useful is plus or minus 2 millimetres) within the relevant range of temperatures. If the criterion used for measuring the length of the metal pipes is a tape measure that only allows precision to the nearest centimetre (that is, essentially allows a precision of plus or minus 5 millimetres), then the criterion (the tape measure) is not precise enough to be useful in these circumstances. On the other hand, if the tape measure allows a measurement within the nearest millimetre (that is, a precision of plus or minus 0.5 millimetres), but the length of the pipes depends upon the temperature at which they are measured because they expand at higher relevant temperatures and contract at lower ones by up to plus or minus

⁴⁸¹ See IFAC 2001, ISA 320.10; AICPA 2001, AU §312.24; CICA 2001, *Handbook Vol. I*, Section 5130.23; APB, 2002, SAS 220.11

5 millimetres, then the criterion (the tape measure) is precise enough to be useful but the subject matter (the pipe) is not precise enough to be useful.

- (693) However, when both the subject matter and the criteria have a certain degree of imprecision, their imprecision must be combined to determine whether a measurement can be useful. For example, if the tape measure allows a measurement to the nearest millimetre (plus or minus 0.5 millimetres), but the pipe expands and contracts by up to plus or minus 2 millimetres in the relevant range of temperatures, then the measurement of these pipes using that tape measure would not be useful because the total imprecision would range between plus or minus 2.5 millimetres, which is greater than the level of required precision specified to be useful (plus or minus 2 millimetres). Consequently, a practitioner needs to consider not only the usefulness of the criteria and the subject matter individually, but also determine the impact of their combined unusefulness. In short, if the subject matter and the criteria are both not perfectly useful, the measurement of the evidence by applying the criteria on the subject matter will be even more unuseful.
- (694) Furthermore, it should be recognised that the progress of the engagement process itself has an effect on the usefulness of the evidence obtained or conveyed. In other words, much like for the level of assurance, the degree of usefulness for given evidence declines as the engagement process progresses. Unlike as is the case for the level of assurance, corroborating evidence cannot alleviate this problem, because if two sources of evidence are both not useful, combining their usefulness will not increase the usefulness (example: the combination of two separate but imprecise tape measurements will not make the overall measurement more precise). Consequently, practitioners would need to obtain more useful evidence in the early stages of the engagement process so that the decline in usefulness from the application of the following stages in the engagement process does not cause the overall conclusion conveyed to be less useful than desired.
- (695) The preceding analysis suggests that an engagement process cannot be considered suitable unless the conclusions conveyed are sufficiently useful in light of the declining usefulness of assertions as the assurance engagement progresses and the effect on their usefulness due to the combined unusefulness of the criteria and the subject matter. These are important issues that have been addressed in neither assurance standards nor auditing literature, but that probably require further academic research.
- (696) **In conclusion, a practitioner needs to consider not only the usefulness of the criteria and the subject matter individually, but also determine the impact of their combined unusefulness. If the subject matter and the criteria are both not perfectly useful, the measurement of the evidence by applying the criteria on the subject matter will be even more unuseful. It should be recognised that the progress of the engagement process itself has an effect on the usefulness of the evidence obtained or conveyed. The**

degree of usefulness for given evidence declines as the engagement process progresses, but this problem cannot be alleviated by corroborating evidence, because if neither of the two pieces of evidence are useful, combining their usefulness will not increase their usefulness. Hence, practitioners would need to obtain more useful evidence in the early stages of the engagement process so that the decline in usefulness from the application of the following stages in the engagement process does not cause the overall conclusion conveyed to be less useful than desired. This implies that an engagement process cannot be valid unless these factors are taken into account in the determination as to whether the conclusions conveyed are sufficiently useful. This area may require further academic research.

F. THE IMPLICATIONS OF THE CONCLUSIONS DRAWN IN RELATION TO ENGAGEMENT SYSTEMS, CRITERIA, SUBJECT MATTER AND EVIDENCE

Issue: What are the implications of the conclusions with respect to the suitability of the elements of assurance engagements?

- (697) Based on a synthesis of information, accounting, auditing, assurance, attestation and measurement theory, Part A of this Chapter determined that information needs to be valuable to be suitable and analysed the components of valuable information. Furthermore, it was determined in the analysis of suitable subject matter that for information to be suitable, it would need to not only be valuable, but also meet ethical requirements. In the analysis of the nature of subject matter, the Paper also concludes that the application of the criteria to measure or evaluate or even identify subject matter in an assurance engagement is a property ascription and hence classification exercise. This implies that the relationship between the criteria and the subject matter is a very close one – in fact, in many cases the subject matter would not exist independently of the criteria.
- (698) Furthermore, suitability is a concept that actually relates not to the criteria and subject matter separately, but to the assertions generated by the application of the criteria to the subject matter. Consequently, one can only speak of the suitability of the criteria for given subject matter and vice-versa – not of the suitability of the subject matter or the criteria in any form of isolation. The Paper also draws the conclusion that evidence is information that supports the beneficial nature of other information (assertions), but that there are a number of interconnected evidence concepts that need to be considered. Given the nature of evidence as information, the definition of suitability of information would also apply to evidence. The “auditability” of subject matter with given criteria depends upon whether sufficiently suitable evidence can be obtained.
- (699) However, the criteria, subject matter and evidence must be seen within the context of the assurance engagement system (an information system which includes the engagement input, process and output) and its environment – since these will determine whether suitable criteria, subject matter and sufficient appropriate engagement evidence can be obtained. Furthermore, the limitations of the engagement process in yielding the cumulative usefulness of the information desired to be conveyed at the desired level of cumulative assurance need to be recognised.
- (700) On this basis, the primary focus of those who set standards for assurance engagements ought to be the development of the required elements of a suitable engagement system for given environments and the development of standards and guidance for a valid engagement process, for if these standards are appropriate, then the appropriate application of these standards to

assurance engagements will yield suitable criteria, which in turn will yield suitable subject matter in relation to these criteria, sufficient appropriate engagement evidence and reasonable conclusions therefrom that can be conveyed to users.

- (701) Overall, however, the most important conclusion would be that the suitability of the assertions, generated by the application of the criteria to the subject matter and leading acquisition of evidence in the engagement process to support those assertions with a certain level of assurance, is a continuum where the required threshold level for a particular engagement is determined by the circumstances of the engagement in light of user needs.

VI. THE DETERMINANTS OF ASSURANCE, TYPES OF ASSURANCE ENGAGEMENTS AND REPORTING IMPLICATIONS

**A. IMPLICATIONS OF THE ASSURANCE CONCEPT AND
THE NATURE OF THE ELEMENTS OF ASSURANCE
ENGAGEMENTS FOR HIGH AND MODERATE
ASSURANCE ENGAGEMENTS**

Issue: What are the implications of the assurance concept and the nature of the elements of assurance engagements for high and moderate assurance engagements?

- (702) In Chapter IV, the meaning of assurance, and in particular, the meaning of the terms “high assurance” and “moderate assurance” were examined. Section 3 of Part E of that Chapter concluded that the term “high assurance” is associated with an absolute range of assurance that appears to correspond to the legal term “clear and convincing evidence”, which suggests that reasonable doubts may still be entertained at this level of assurance. The concept of high assurance as an absolute rather than relative range implies that the range of assurance constituting “high” does not vary between engagement types, specific engagements, or across jurisdictions or over time. From a Bayesian perspective, “high assurance” would be cognate to a “highly probable” level of certainty.
- (703) “Moderate assurance”, on the other hand, is associated with an absolute range of assurance that appears to correspond to the legal term “preponderance of the evidence”, which suggest that more than just reasonable doubts may still be entertained at this level of assurance. From a Bayesian perspective, “moderate assurance” would be cognate to a “probable” level of certainty, where the lower bound would be defined at “more probable than not” just above the balance of the probabilities.
- (704) As was noted in Part B of Chapter I, the major symptomatic issue separating the so-called “work effort approach” from the “variable approach” is the view that the performance of a moderate assurance engagement is not possible when a high assurance engagement cannot be performed. In this respect, it may be useful to examine the effect of the Paper’s analysis in Chapter V of the engagement system and its surrounding environment, the criteria, the subject matter and evidence on the uncontroversial case (i.e., moderate assurance when high assurance is possible) to help draw the conclusions for the controversial case (i.e., moderate assurance when high assurance is not possible).
- (705) The prerequisite for obtaining high assurance based upon the analysis in Chapter V would be that the assertions (both explicit and implicit) upon which high assurance has been obtained are sufficiently suitable for users, with sufficient suitability being defined as being both sufficiently valuable (see Part A

of Chapter V) and meeting ethical requirements (see Section 6 Part A Chapter V). The generation of sufficiently suitable assertions to obtain high assurance in relation to these would, in turn, be predicated upon a sufficiently suitable engagement system and surrounding environment in which a sufficiently suitable engagement process leads to the identification of a combination of sufficiently suitable criteria and subject matter (and properties and indicants thereof). The application of these criteria to the subject matter should result in suitable engagement evidence that is sufficient and appropriate to support the conclusions drawn with high assurance and so conveyed in the practitioner's report.

- (706) Given that, all other things being equal, there is an inverse relationship between the suitability of the assertions generated by the application of the criteria to the subject matter and the level of assurance obtainable (see Chapter V Part E Section 7), if the performance of a high assurance engagement is possible, the assertions generated by the application of the criteria to the subject matter would also be suitable for a moderate assurance engagement. In other words, the criteria and the subject matter need not vary between the high and moderate assurance engagements in this case. Rather, the practitioner varies the performance of the engagement process to obtain less than high assurance either by:
1. gathering less evidence (i.e., less quantity, but of equivalent quality) than for a high assurance engagement so that the evidence gathered is insufficient for obtaining high assurance yet sufficient for obtaining moderate assurance; or
 2. gathering evidence of lesser quality (i.e. less quality, but of similar quantity) than for a high assurance engagement so the evidence gathered is not appropriate for a high assurance engagement yet appropriate for a moderate assurance engagement.
- (707) The problem with the work effort approach using audits and reviews of financial statements as a basis is that this would essentially limit moderate assurance engagements to those situations in which evidence of lesser quality rather than less evidence (i.e. less quantity) is obtained, since, in reviews of financial statements, the practitioner obtains evidence of lesser quality (analysis and inquiry rather than tests of control and substantive tests of detail, for example) than in an audit. The question arises as to why moderate assurance cannot be obtained simply by reducing the quantity of evidence.
- (708) Furthermore, it is questionable whether moderate assurance (the preponderance of the evidence or at least a level of certainty greater than the balance of the probabilities) is achieved for all explicit and implicit assertions, including for management fraud or fraud involving collusion with third parties. This is one reason why a study in at least one jurisdiction (see Chapter IV Part D Section 2 d) suggests that assertions with respect to fraud and illegal acts

should be explicitly scoped out of the engagement in the practitioner's report. It may even be questionable whether a review engagement as currently constituted provides moderate assurance for assertions with respect to error in the financial statements. In some cases the assurance obtained in an audit of financial statements for risks of error (e.g., should revenue be recognised based upon the interpretation of a sales contract in a particular case) would not be more than the "preponderance of the evidence" (i.e., moderate assurance), in which case procedures carried out in a review of lesser quality would obtain less assurance than that. In a review engagement, the practitioner is required to carry out additional or more extensive procedures beyond inquiry and analysis necessary to be able to obtain moderate assurance only if the he or she has reason to believe that the information subject to review may be materially misstated.⁴⁸²

- (709) This implies that for the uncontroversial case (obtaining moderate assurance when high assurance is possible, which is compatible with the work effort model), the work effort model is effective only in situations where high assurance is achieved for all explicit and implicit assertions. Because this is not likely to be the case for most engagements requiring professional judgement, such as in audits of financial statements (see the revenue recognition example noted above), this conclusion appears to support the notion that one should speak of "reasonable" rather than "high" assurance for audits of financial statements and of "limited" rather than "moderate" assurance for reviews of financial statements where difficult explicit or implicit assertions have not been explicitly scoped out of the engagement in the practitioner's report. Hence, for those assurance engagements requiring the exercise of considerable professional judgement where it may be difficult to ascertain the level of assurance obtained for all explicit or implicit assertions, the use of the terms "reasonable" and "limited" as applied for audits and reviews, respectively, in one jurisdiction, appears to be superior to the use of the terms "high" and "moderate".
- (710) For the controversial case (obtaining moderate assurance when high assurance is not possible), the analysis necessarily becomes more complex, but the appearance of complexity can be minimised by building on the conclusions drawn from the uncontroversial case. In the controversial case, one leaves the work effort model by supporting the argument that there may be circumstances where, due either to the limited suitability of the assertions generated by the application of the criteria to the subject matter or due to the limited availability of the evidence (generated by the application of the criteria to the subject matter in the engagement process) supporting these assertions, it may still be possible to obtain a moderate – but not high – level of assurance.

⁴⁸² IFAC 2001, ISA 910.22; AICPA 2000, *Professional Standards Vol. II*, AR § 100.31; CICA 2001, *Handbook Vol. I*, Section 8100.15; APB, 2002, *APB Bulletin* 1999/4.19

- (711) Given the conclusions in the previous Chapter that suitability is necessarily a continuum, to the extent that obtaining moderate assurance for the assertions satisfies user purposes by providing sufficiently suitable information, then the assertions (and hence the combination of criteria and subject matter within the engagement system and its environment) would be sufficiently suitable for the purposes of that engagement. Moreover, given the conclusion in Part B Chapter V that an assurance engagement is, from a logical point of view, essentially a classification exercise, there does not appear to be any logical reason to justify the view that it is not possible to classify a subject matter with moderate assurance when it is not possible to classify a subject matter with high assurance.
- (712) The underlying problem with the variables approach, however, is not its theoretical support, but its practical implementation given the limited applicability of the “high” and “moderate” concepts for situations in which considerable professional judgement must be exercised when performing an assurance engagement. It is apparent that for most circumstances in which practitioners will be asked to provide an assurance service, the range of assurance for the explicit and implicit assertions may be quite large. On this basis, it may be advisable to dispense with the use of the terms “high assurance” and “moderate” assurance in assurance and auditing standard setting.
- (713) **In conclusion, the terms “high” and “moderate” assurance do not appear to represent useful concepts for assurance engagements that practitioners normally are being asked to perform – especially those requiring the exercise of professional judgement.**

B. REASONABLE AND LIMITED ASSURANCE ENGAGEMENTS

Issue: What kinds of assurance engagements ought to exist and how should they be called?

- (714) The previous Section discussed the shortcomings of the high and moderate assurance concepts. The obvious alternative is the use of the terms “reasonable” and “limited” assurance. There are significant advantages to this approach. The most important is that the broad nature of reasonable assurance (greater than the balance of the probabilities, usually less than virtual certainty but always less than absolute assurance) obviates the need to scope out some assertions. In addition, the term limited assurance essentially signifies the fact that the assurance obtained was limited on purpose even though it could have been reasonable to obtain more assurance, if desired. Of course, an engagement to obtain and express limited assurance could only be accepted by a practitioner if the limited assurance obtained on the assertions embodied in the practitioner’s report provide sufficiently suitable information to users and the practitioner is convinced that users are prepared to accept less assurance than could reasonably have been obtained with greater effort.
- (715) The primary shortcomings of the concepts “reasonable” and “limited” assurance are the flip side of their strengths: their nebulous meaning. What is reasonable in the circumstances depends upon what a society deems reasonable through the operation of its courts and through the standards set by the profession using a transparent due process that considers the public interest. Limited means no more than less than what could otherwise reasonably have been obtained. The question then arises whether the use of these words is meaningless without operationalising them by defining them in terms of actions or operations⁴⁸³ (procedures), i.e., perhaps one can differentiate between reasonable and limited assurance by the nature of extent of procedures (example: the difference between audits and reviews as noted in the previous Part).
- (716) However, such an operationalisation by means of defining procedures is fraught with its own difficulties. If the definition of procedures is limited to essential procedures, which in this case, represent the criteria defining that class of engagement, and only these procedures are necessary to perform all of the engagements within that class, then while a certain class of engagements has been effectively operationalised, such an engagement cannot involve the application of professional judgement in the application of procedures. Yet, it is

⁴⁸³ IAASB of IFAC, 2002, Study 1, p. 17

precisely the application of professional judgement in selecting and applying procedures that distinguishes an assurance engagement such as an audit from an agreed-upon procedures engagement or a simple mechanical exercise.

- (717) Likewise, if one were to define all of the conditions under which certain procedures would become necessary, an engagement would become a simple mechanical exercise involving tests of form (akin to legal subsumption) not requiring professional judgement rather than of substance that would require such judgement. This suggests that while certain basic principles and essential procedures can be set forth in standards for specific types of assurance engagements, this cannot be done at a generic level. Furthermore, while certain essential procedures define particular kind of assurance engagement, no such list of procedures will ever be definitive for all circumstances encountered in practice. In this sense, the inability to conceive of a definitive list of procedures automatically leads to a “principles-based” approach to standard setting, if this term means the definition of basic principles and essential procedures for a particular kind of assurance engagement and the context in which these are applied.
- (718) Hence, the weaknesses associated with lack of operationalisation cannot be alleviated without reducing assurance engagements to tests of form that do not require the exercise of professional judgement as opposed to tests of substance that do. The use of the concepts “reasonable” and “limited” in conjunction with assurance engagements is based on the presumption the society prefers professionals to exercise professional judgement so that they can opine on issues of substance rather than merely issues of form.
- (719) On this basis, one can conclude that there are two kinds of assurance engagements: those in which the professional obtains reasonable assurance and those in which the professional obtains less than the assurance that could reasonably have been obtained (limited assurance) because it isn’t necessary for certain reasons, such as benefit-cost considerations. While audits and reviews of financial statements are an example of assurance engagements leading to reasonable or limited assurance, respectively, it is apparent that reviews of financial statements are very much constrained by their operationalisation into certain kinds of procedures (inquiry and analysis). Furthermore, in many jurisdictions, audits of financial statements are, in some circumstances, subject to legislative or regulatory requirements, which do not necessarily follow the general principles of assurance engagements.
- (720) For this reason, it appears sensible to segregate audits of financial statements (and in particular, statutory audits) in a conceptual way by applying different nomenclature to other assurance engagements that lead to the acquisition of reasonable assurance. This argument applies even more so to reviews of financial statements compared to assurance engagements leading to the acquisition of limited assurance, since reviews of financial statements are so constrained by their procedural perspective (inquiry and analysis).

- (721) The solution to the nomenclature for assurance engagements leading to the acquisition of reasonable assurance is fairly simple, since in the U.S., the term “examination” is used for these kinds of engagements.⁴⁸⁴ There is no reason not to follow this example. However, the U.S use of the term “review” for assurance engagements leading to the acquisition of limited assurance is not worthy of emulation, since, unlike the AICPA standards, this Paper does not propose to limit these kinds of engagements to inquiry or analytical procedures.
- (722) For lack of a better term, the term “survey” might be applied to all those engagements leading to the acquisition of limited assurance. While there will be those that will argue that in dictionaries the term “survey” is a synonym for “examination”, it should be pointed out that the word “review” suffers from the same defect. The use of the word “survey” is being suggested solely to distinguish that kind of limited assurance engagement from reviews of financial statements. Of course, other alternatives to the use of these two terms may be suggested.
- (723) **In conclusion, assurance engagements ought to be divided into two kinds: those leading to the acquisition of reasonable assurance and those leading to the acquisition of limited assurance. The first should be called “examinations” to distinguish them from audits of financial statements, which are subject to considerable legislation and regulation in many jurisdictions; the second could be called “surveys” to distinguish them from reviews of financial statements, which are associated with certain kinds of procedures.**

⁴⁸⁴ AICPA 2001, AT §100.57 and AT §101.84

C. REPORTING IMPLICATIONS

Issue: What are the reporting implications of the conclusions reached in this Paper?

- (724) Pursuant to Section 3 Part B Chapter III, an assurance engagement includes the practitioner issuing a report of findings in relation to subject matter based on procedures that the practitioner has performed in relation to that subject matter. Furthermore, these findings contained in the report represent an opinion or conclusion that conveys the assurance obtained. While the underlying definition of an assurance engagement is clarified in Chapters subsequent to Chapter III, these deliberations do not impinge upon the requirement for the practitioner to issue a report with an opinion or conclusion that conveys the assurance obtained.
- (725) This communication of the results of an assurance engagement (designated an “auditor’s report” for audits of financial statements) to users represents the transmission of information by the practitioner to the user. Hence, the requirements for the suitability of information as defined in Section 9 Part A in conjunction with Section 6 Part B of Chapter V ought to apply to the form, content and mode of transmission (channel) for practitioners’ reports. The conclusion that the characteristics of information apply to practitioners’ reports is in consonance with the view taken in the FEE Study: The Auditor’s Report in Europe.⁴⁸⁵
- (726) There is considerable literature – particularly in relation to information or communication theory – that addresses issues in relation to communication generally or to the communication of the results of an assurance and audit engagement. The IAASB Study No. 1 provides an excellent literature review of the application of communication theory and the conclusions resulting from both that review and the survey of national professional accounting bodies and of accounting firms (see Chapters 2.4, 2.5, 2.6, 6.2 and 6.3).⁴⁸⁶ In particular, the Study concludes that communication to users of the results of an assurance engagement can be improved by improving the nature of the report and by considering the role of the user in this communication process,⁴⁸⁷ but notes that the determinants of assurance and effective communication relating to assurance engagements are highly interrelated.⁴⁸⁸ Furthermore, the Study notes that one alternative communication framework would be to associate different assurance levels with different types of procedures.⁴⁸⁹ However, it was noted in

⁴⁸⁵ FEE 2000, pp. 9-10

⁴⁸⁶ IAASB of IFAC, 2002, Study 1, 2002, pp. 16-27, 117-123

⁴⁸⁷ IAASB of IFAC, 2002, Study 1, 2002, p. 27

⁴⁸⁸ IAASB of IFAC, 2002, Study 1, 2002, p. 122

⁴⁸⁹ IAASB of IFAC, 2002, Study 1, 2002, p. 122

the previous Part of this Paper that this approach is not without serious difficulties. Other possibilities included longer form reporting, but there is little evidence concerning the effectiveness of such reporting.⁴⁹⁰ As noted in Section 9 Part A Chapter V of this Paper, this approach may be associated with information overload for users.

- (727) The view in the IAASB Study that the determinants of assurance and their communication are highly interrelated suggests that the conclusions reached in the previous Part of this Paper on reasonable and limited assurance engagements may have implications for assurance reporting. In that Part, assurance engagements are divided into two types: examinations leading to reasonable assurance (i.e., the acquisition of the assurance that could reasonably be obtained) and surveys leading to limited assurance (i.e., the acquisition of less assurance than could reasonably be obtained). Given the differences in these engagement parameters, it would be incumbent upon the profession to ensure that in an assurance engagement, no doubt as to which of these two engagements has been performed should exist in the minds of report users.
- (728) This implies that the reports for surveys be clearly distinguished from those for examinations and that the nature of examinations or surveys be clearly conveyed. Regardless of whether the engagement is an examination or survey, there are certain basic elements of an engagement that would need to be described in the report so that users can derive meaning from the report's contents. While current reports contain generally contain certain matters, other matters have not traditionally been included in such reports. In particular, without drawing any conclusions as to what should or should not be included in a practitioner's report in general or in specific circumstances, most of the kinds of disclosures that could be placed into the report can be divided into the following categories and subcategories (not necessarily in the order in which they might appear in a report):
1. engagement
 - a) reason(s) for the engagement
 - (i) legal (i.e. regulatory) requirements
 - (ii) professional/industry requirements
 - (iii) contractual requirements
 - (iv) commercial reasons
 - (v) risk management or control purposes
 - (vi) relative benefits and costs of engagement
 - b) objective of the engagement

⁴⁹⁰ IAASB of IFAC, 2002, Study 1, p. 123

c) type of engagement

- (i) examination
- (ii) survey

d) terms of engagement

- (i) engaging and appointing parties
- (ii) contractual or agreed engagement scope (including selection of the subject matter and criteria), applicable requirements and restrictions on engagement scope
- (iii) contractually required or agreed communication or reports to be issued and restrictions on their use
- (iv) contractual or agreed basis of practitioner compensation and its source
- (v) contractual or agreed restrictions on practitioner liability, if any
- (vii) contractual or agreed responsibilities of other parties towards the practitioner
- (viii) contractual or agreed responsibilities of the practitioner towards the responsible party, the engaging or appointing parties and users
- (ix) other agreements of the practitioner with the engaging, appointing, or responsible parties or with users relevant to users of the report

2. engagement environment

a) responsible party

- (i) identity
- (ii) nature and extent of responsibility for the subject matter and its environment
- (iii) role of the responsible party in choosing and compensating the practitioner
- (iv) general responsibilities of the responsible party towards the practitioner
- (v) general responsibilities of the responsible party towards the engaging or appointing parties and users
- (vi) role of the responsible party in selecting the subject matter and criteria

b) practitioner

- (i) identity (individual(s), firm(s), office (s), etc.)
 - (ii) relevant qualifications
 - (iii) relevant legal and regulatory requirements and professional standards to which the practitioner is subject in relation to the engagement
 - (iv) nature and extent of responsibility for the subject matter and its environment, if any
 - (v) nature and extent of general responsibility towards the responsible party, engaging or appointing parties, users and others
 - (vi) role of the practitioner in selecting the criteria and subject matter, if any
 - (vii) responsibilities of the practitioner with respect to objectivity and independence, assertions in this respect and the basis for these assertions
 - (viii) internal firm-level and engagement level quality control and external quality control mechanisms
 - (viii) operational (e.g., procedural) and reporting responsibilities under the engagement
- c) user(s)
- (i) identity of the user(s) or user groups, if identifiable
 - (ii) user involvement in the selection of the subject matter or criteria, if any
 - (iii) responsibilities of the users towards the practitioner, responsible party, and engaging or appointing parties, if any
 - (iv) required characteristics of users capable of evaluating information or assertions in relation to the subject matter and of assessing the content of the practitioner's report
- d) legal environment
- (i) legal requirements engendering the engagement, if any
 - (ii) legal requirements governing the overall nature (type) of the engagement
 - (iii) legal requirements with respect to the appointing and engaging parties
 - (iv) legal requirements with respect to the qualifications of the practitioner

- (v) legal requirements with respect to engagement scope (including selection of the subject matter and criteria), and legal restrictions on engagement scope
 - (vi) legal communication and reporting requirements
 - (vii) legal basis for practitioner compensation and its source and restrictions on these
 - (viii) legal basis for liability of responsible party towards practitioners, the engaging or appointing parties and users, and restrictions thereon
 - (ix) legal basis for liability of practitioner towards responsible party, engaging or appointing parties and users, and restrictions thereon
 - (x) legal requirements with respect to engagement procedures, if any
 - (xi) legal requirements with respect to practitioner objectivity and independence
 - (xii) legal requirements with respect to the standards to be applied by practitioners in the engagement
- e) professional environment
- (i) professional requirements with respect to practitioner qualifications for the specific engagement being performed
 - (ii) professional requirements with respect to practitioner objectivity and independence
 - (iii) professional requirements governing the overall nature (type) of the engagement
 - (iv) professional requirements with respect to engagement scope (including selection of the subject matter and criteria) and restrictions on engagement scope
 - (v) professional communication and reporting requirements
 - (vi) professional basis for practitioner compensation and its source and restrictions on these
 - (vii) professional requirements with respect to engagement procedures, if any
 - (viii) professional requirements with respect to the standards to be applied by practitioners in the engagement
- f) subject matter environment

- (i) the importance or position of the subject matter in user decision making
 - (ii) the legal or economic entity within which the subject matter resides (control or ownership)
 - (iii) other factors within the environment that affect the subject matter and its measurement
- g) criteria environment
 - (i) identification of the criteria's authoritative source, if any
 - (ii) ownership or control over the criteria, if not in the public domain
 - (iii) identification of where the criteria may be obtained or inspected if not directly available in detail within the subject matter or in the practitioner's report
- 3. engagement system
 - a) boundaries and interfacing super- and subsystems
 - (i) the scope of the engagement and its delineation from other engagements: the basic principles underlying the engagement
 - (ii) the role of the engagement within other supersystems (e.g., the role of financial statement audits in corporate governance, capital markets, etc.)
 - (iii) the role of engagement subsystems as part of the engagement (e.g., the role of the audit of financial statements of subsidiaries in the audit of consolidated financial statements)
 - b) initial engagement inputs and engagement processes
 - (i) proposed subject matter
 - (ii) proposed criteria
 - (iii) potential evidence
 - (iv) proposed engagement process
 - (v) potential resources available and required from the responsible party
 - (vi) proposed reporting requirements
 - (vii) engagement acceptance procedures
 - (viii) planning process
 - (ix) risk assessment process

- (x) evidence gathering process
- (xi) evaluation process
- (xii) quality control processes
- (xiii) reporting processes
- c) criteria
 - (i) identification of the criteria
 - (ii) description of the process by which the criteria are selected
 - (iii) the relationship between the criteria and the subject matter
 - (iv) strengths and limitations of the criteria
- e) subject matter, properties and indicants and manifestations
 - (i) identification and delineation of the subject matter
 - (ii) description of the process by which the subject matter is selected
 - (iii) identification of the properties of the subject matter measured
 - (iv) description of the indicants used to measure the properties
 - (v) description of the manifestations resulting from the measurements
 - (vi) limitations on the measurability of the subject matter using the criteria
- f) assertions
 - (i) the assertions generated by the application of the criteria to the subject matter
 - (ii) the risks associated with the assertions
- g) evidence
 - (i) major types of evidence gathered
 - (ii) major sources of evidence
 - (iii) limitations on the evidence obtained due to the nature of the subject matter and criteria
 - (iv) limitations on the evidence obtained due to engagement scope limitations
 - (v) limitations on the validity of the evidence obtained
 - (vi) the impact of the evidence obtained and its validity on the risks associated with the assertions

h) procedures

- (i) procedures essential to the performance of this kind of engagement
- (ii) the types of procedures performed in this type of engagement
- (iii) the nature and extent of specific procedures performed
- (iv) the relationship between the evidence obtained, its validity, the risks associated with the assertions and the nature and extent of procedures performed

i) engagement output

- (i) the conclusions drawn from the evaluation of the evidence
- (ii) the overall assertion embodied in the opinion reached from the conclusions on the classification of the subject matter
- (iii) the assurance obtained in relation to the opinion reached
- (iv) the validity of the opinion reached
- (v) limitations of the conclusions reached and hence opinion expressed

(729) The preceding list is by no means exhaustive and the categories and subcategories on the list may be subject to considerable overlap. However, the length of the list does suggest that the inclusion of all matters noted would likely lead to information overload. Furthermore, there may be many items on the list that, upon closer examination, need not or should not be included in a report or communication for various technical or political reasons. A good number of items, however, are already included in auditors' reports, even if only briefly or by means of allusion. However, the length of the list and some of the items identified in it do suggest that the contents of practitioners' reports have not yet been systematically analysed by either academics or standard setters. In particular, no systematic analysis for the explicit inclusion or exclusion of the matters identified appears to have taken place.

(730) The dearth of systematic literature in this respect may be because no criteria for the determination of inclusion or exclusion beyond those for the characteristics of suitable information have been defined. In any case, the merits of the inclusion or exclusion of particular matters identified on the list must therefore lie beyond scope of this Paper. Furthermore, the development of specific criteria for the determination of inclusion or exclusion from practitioners' reports is a major academic exercise. Consequently, considerable additional academic research into the content of practitioner reports needs to be undertaken.

(731) However, there are a number of conclusions that can be drawn from the deliberations contained in this Paper beyond that an examination needs to be

clearly distinguished from a survey and that the nature of examinations or surveys be clearly conveyed. One matter that would need to be clarified to users is the concept of “reasonability”, since it appears to be central to the definition of both kinds of engagements.

- (732) What is reasonable in the circumstances in the performance of an examination is determined by balancing user expectations, practicability (i.e., what practitioners can deliver), cost and the views of the courts in different jurisdictions. With respect to user expectations and cost, both the overall *net benefits* of an examination and its *limitations* would need to be conveyed to users. Furthermore, to manage the operation of jurisprudence, the report would need to indicate the means by which the examination was operationalised – that is, a summary description of the basic kinds of procedures that would ordinarily be reasonable – and ordinarily be unreasonable – to perform in such an examination engagement and their limitations – but without thereby leading to information overload.
- (733) This is, of course, a difficult balance to achieve. Furthermore, a significant problem associated with describing essential procedures and related conclusions is the danger that in substance the engagement will represent an agreed-upon procedures engagement rather than an assurance engagement. Section 3 Part E Chapter IV together with the first two Parts of this Chapter, conclude that in situations where the application of professional judgement becomes important, it would be difficult to determine the level of assurance obtained on an absolute scale for the assertions on which the practitioner opines. Consequently, where the application of professional judgement becomes important, this Paper concludes that the application of the concept of reasonable assurance becomes important, but that reasonable assurance is associated with the legal concept of the preponderance of the evidence at a minimum. This suggests that perhaps the concept of preponderance of the evidence ought to be incorporated into either the description of the scope of the engagement or into the opinion – or both.
- (734) For example, a generic opinion for an examination might read as follows: “Based upon the preponderance of the evidence obtained in the performance of the engagement, in our opinion the subject matter meets the criteria for the class of subject matter defined by these criteria”. For an audit of financial statements, the opinion could be expressed as follows “Based upon the preponderance of the evidence obtained in the performance of our audit, in our opinion the financial statements are fairly presented as defined by International Financial Reporting Standards”. In these cases, the description of the scope of the engagement would still need to describe the link between the acquisition of reasonable assurance, and the acquisition of sufficient appropriate engagement evidence so that an opinion based on the preponderance of the evidence can be reached.

- (735) While the acquisition of reasonable assurance in an examination can be described in terms of the preponderance of the evidence, the description of a survey leading to the acquisition of limited assurance is more difficult because of the comparatively greater reliance upon presumptions (see the discussion in Chapter V Part D Section 9). However, because the expression of negative assurance (i.e., “nothing has come to our attention”) is closely linked to reviews of financial statements that are based upon certain kinds of procedures (inquiry and analytical procedures), whereas limited assurance engagements need not be limited to these procedures in this way, it does not appear opportune to restrict the communication of the results of a limit assurance engagement to expressions of negative assurance.
- (736) Furthermore, given the fact that even for reasonable assurance engagements (or even engagements of a forensic nature) practitioners need to make presumptions – even if of lesser strength – it appears that an expression of negative assurance could actually be applied to all kinds of assurance engagements – not just to those leading to limited assurance. Consequently, in view of their undefined literal meaning, expressions of negative assurance ought to be avoided in the communication of conclusions for assurance engagements.
- (737) Hence, to convey the nature of the survey performed to users, a better solution might be to describe those kinds of procedures or specific procedures not performed in that limited assurance engagement that would have otherwise been reasonable to perform if an examination had been carried out. By disclosing these in connection with the assertion that no examination leading to reasonable assurance had been carried out, the practitioner would be able to clearly distinguish the survey from the examination that would have otherwise been performed.
- (738) Of course, these kinds of disclosures would be very different between assurance engagements for different kinds of subject matter and perhaps even between assurance engagements for different subject matter within a particular class. In these circumstances, comparability (a component of materiality – see Chapter V Part A Section 9) would be impaired. As was noted in the FEE Study “The Auditor’s Report for the Statutory Audit of Financial Statements”
- “...users would prefer to have auditor’s [sic] reports that they can easily compare between entities and over time (consistency) for a specific entity.
- The primary advantage of such standard auditor’s [sic] reports is that unusual circumstances that require deviation from standard (such as qualifications or paragraphs emphasising particularly important matters) are thereby highlighted and the attention of users is automatically drawn to them. These unusual circumstances act like a “red flag” by catching the attention of users.

Another advantage of standard auditor's [sic] reports is that the audit standards detailing their form and content are generally subject to a due process in which the cumulative judgement and knowledge of the profession is brought to bear. Consequently, a standard auditor's report will also tend to minimise user misconceptions in connection with the non-standard communication of audit results.⁴⁹¹

- (739) The FEE Study also mentions that the primary disadvantage of standard reports is their lack of flexibility when dealing with circumstances that do not warrant a "red flag" but are otherwise still material to the user. The Study also suggests that standard setters consequently engage in a trade-off between comparability and validity. While standard reports are the norm for audits of financial statements,⁴⁹² the question needs to be asked whether reports for other assurance engagements can be standardised to that degree.
- (740) The IAASB Study took the view that it may be best to leave professionals unconstrained by reporting requirements until the profession gains general acceptance as the natural assurance provider.⁴⁹³ The preceding analysis of this Paper suggests this may be only partly true: certainly, it may be useful to refrain from providing detailed and stringent wording requirements for such reports. On the other hand, it is apparent that a reporting framework needs to be established within which practitioners can operate and users will be able to understand the information provided. Consequently, reporting requirements ought to be defined and the wording for the expression of an opinion within the report set forth, but otherwise it appears to make sense not to set forth specific wording requirements for assurance reports until specific engagements are addressed in their own standards.
- (741) **In conclusion, it is apparent that a systematic analysis of reporting requirements needs to be performed – both at an academic level and by standard setters. Furthermore, it is incumbent upon standard setters to ensure that engagements leading to the acquisition of limited assurance are clearly distinguished in communications to users from those leading to reasonable assurance. Opinions or conclusions leading to the acquisition of reasonable assurance could be worded using a reference to the preponderance of the evidence, whereas those leading to the acquisition of limited assurance could be distinguished from examinations by noting the kinds of procedures or specific procedures that were not performed that would otherwise have been performed for an examination. In any case, the contextual meaning of the term "reasonable assurance" would need to be explained to users to help ameliorate the expectations gap. The communication of the meaning of reasonable**

⁴⁹¹ FEE 2000, p. 10

⁴⁹² FEE 2000, p. 10

⁴⁹³ IAASB of IFAC, 2002, Study 1, p. 123

assurance remains a major communications issue for practitioners and standard setters.

- (742) There is considerably more difficulty in defining how the opinion or conclusion itself should be worded for an engagement leading to limited assurance: it is clear, however, that the use of negatively expressed assurance (“negative assurance”) does not convey any additional information to users. This Paper does not suggest how the conclusion or opinion for a limited assurance engagement could be expressed, since this is an issue that requires further research and discussion.
- (743) To ensure some degree of comparability among reports, standard setters should set forth the basic requirements for generic assurance reports and set forth the wording expressing the opinion or conclusion, but should not attempt to provide wording to cover all kinds of assurance engagements. The definition of specific wording other than for the expression of the opinion could be addressed when standards are issued for specific kinds of assurance engagements.

D. OVERALL CONCLUSIONS AND RECOMMENDATIONS

Issue: What are the overall conclusions and recommendations of this Paper?

- (744) The analyses in the Paper indicated that there is a wide divergence in standard setting for assurance engagements in key areas. Furthermore, there are a large number of important issues that have either not been addressed in the standards or have not been addressed in a consistent manner.
- (745) Some of the issues on which there does not appear to be consensus among standard setters (or even between or within standards issued by the same standard setters) and the conclusions of this Paper on these matters (included in parentheses after the identification of each contentious issue) include:
1. the fundamental distinction between assurance engagements and other types of professional engagements (the primary distinguishing characteristic of assurance engagements is the issuance of an overall conclusion or opinion by the practitioner with a certain level of assurance about particular assertions with respect to subject matter using identified criteria based upon evidence obtained in an engagement process)
 2. the role of direct engagements, where the practitioner expresses an opinion or conclusion directly upon subject matter based upon a direct evaluation of the subject matter against the identified criteria, vs. indirect engagements, where the practitioner expresses a conclusion or opinion on the reliability of or that enhances the credibility of a written assertion by the responsible party in relation to the subject matter (differentiating between direct and indirect engagements is not as useful as differentiating between engagements in which the practitioner measures the subject matter directly as opposed to engagements in which the practitioner examines measurements undertaken by the responsible party)
 3. the appropriate assurance perspective in relation to engagement risk (the appropriate assurance perspective in relation to engagement risk is that of the assurance obtained by the practitioner, whereby engagement risk becomes the mathematical complement of assurance)

4. the meaning of the terms “high” and “moderate” assurance (these represent mutually exclusive terms across engagement types and reflect absolute rather than relative notions)
5. the meaning of the term “reasonable assurance” (a relative term whose content depends upon the circumstances, which implies that reasonable assurance varies not only across different subject matter, criteria, evidence and engagement processes, but also across jurisdictional boundaries and within jurisdictions over time)
6. the assurance obtained in engagements not achieving reasonable assurance (the term “limited assurance” appears to be associated with engagements in which the decision was taken to obtain less assurance than otherwise could have been reasonable to obtain)
7. the characteristics of suitable elements of assurance engagements or assertions generated by such engagements (a synthesis of ethical considerations, information or communications theory and measurement theory appears to provide the appropriate tools with which to analyse the suitability of assertions generated by an engagement; this context leads to the application of the concept of “validity” and a redefinition and distinction of the concepts “reliability” and “credibility”;)
8. what practitioners “do” with subject matter from a logical point of view (subject matter cannot be measured directly; a practitioner measures the indicants of properties possessed by subject matter and uses the manifested outcomes of these measurements to determine whether the subject matter possesses those properties and manifestations thereof predicated by those properties essential to being a member of a particular class of subject matter; in essence, this implies that assurance engagements represent a property ascription and hence a classification exercise)
9. the suitability of subject matter (subject matter is deemed to be suitable when the application of given criteria to that subject matter generate suitable assertions; such assertions are suitable if they are both valuable to users and satisfy applicable ethical requirements)
10. the suitability of criteria (criteria are deemed to be suitable when their application with respect to specific given subject matter generates suitable assertions; one cannot speak of the suitability of criteria or of subject matter in isolation)

11. the nature of evidence (evidence is a form of information, generated by the application of the criteria on the subject matter, that contributes to the confirmation or refutation of assertions about events and circumstances in connection with that subject matter; there are different evidence concepts that can be applied in determining the nature of evidence)
 12. the nature and extent of evidence required in an assurance engagement (the evidence required in an engagement and hence the nature of an engagement depends upon the acceptable presumptions that a practitioner may entertain in performing the engagement; ultimately, the reasonableness of making these presumptions is determined by their acceptance by engagement stakeholders and by practitioner capabilities)
 13. the nature of the engagement process (an assurance engagement is an information system that conveys information from the practitioner to users; the engagement process is a part of this system; a suitable engagement process is predicated upon suitable engagement management and a suitable engagement system and environment)
 14. the role of standard setters (the primary focus of those who set standards for assurance engagements ought to be the development of the required elements for a suitable engagement system for given environments and the development of standards and guidance for suitable engagement processes in this context)
 15. the application of the concepts “high” and “moderate” assurance in assurance engagements (high and moderate assurance do not appear to represent useful concepts for assurance engagements in which practitioners are required to exercise considerable professional judgement)
 16. the appropriate categories of assurance engagements (assurance engagements ought to be categorised into those leading to the acquisition of reasonable assurance and those leading to the acquisition of limited assurance)
 17. reporting requirements (a systematic analysis of reporting requirements for assurance engagements still needs to be performed by both academics and standard setters)
- (746) There are those who have advocated what is termed the “principles-based” approach to standard setting. The analyses in this Paper indicate that standard setting in the past has not been “principles-based” enough – possibly because the foundations underlying such an approach have

not been established. On the one hand, it is apparent that there is considerable academic research that still needs to be done in the area of audit, assurance and attestation theory. On the other hand, given the problems associated with the expectations gap, which appears to be growing given recent corporate events that have affected the auditing profession, standard setters ignore the theoretical foundations of their craft at their peril. This means that the cooperation between standard setters and the academic community needs to be expanded and improved.

(747) Furthermore, accounting standard setters have recognised the need for conceptual frameworks of accounting. In contrast, the auditing, attestation and assurance standard setters have not yet produced such a conceptual framework to guide and underpin their standard setting processes. Certainly, the general attestation and assurance standards issued by standards setters at an international level (IAASB) and in the U.S., Canada and Australia are a step in the right direction. Nevertheless, these do not represent conceptual frameworks as known in the accounting world. The FEE therefore recommends that the accounting profession in Europe and elsewhere undertake renewed efforts to develop and agree on an internally consistent conceptual framework for assurance engagements that will serve as a foundation for future standard setting and guidance in this area. Such a conceptual framework for principles-based standard setting ought to address:

- The levels of analysis underlying requirements in standards
- The tools required to analyse standards
- The economic basis for assurance and other related engagements
- Types of subject matter
- Types of professional engagements
- Distinguishing characteristics of assurance engagements
- Measurement vs. remeasurement issues
- The nature of assurance and its relationship to risk
- The meaning of reasonable assurance and limited assurance
- The qualitative characteristics of suitable assertions based upon information and measurement theory
- The nature of subject matter and its measurement
- The nature of criteria and their relationship to subject matter
- The nature of the assertions generated by the application of the criteria to the subject matter

- Evidence concepts underlying an assurance engagement
- The nature of corroborating evidence
- The role of presumptions underlying the performance of assurance engagements
- The engagement system, its environment and the engagement process within that system
- The requirements for a suitable engagement system
- Reporting principles.

Appendix I: Background

1. GENERAL

- (1) The performance of engagements in which the subject matter is other than financial statements by professional accountants in public practice (hereinafter referred to as “practitioners”) has a long history preceding the issuance of standards in this area. Nevertheless, as the nature of these engagements became further removed from audits, reviews and compilations of financial statements, general standards of practice became increasingly necessary.
- (2) While the performance of engagements on subject matter other than financial statements and the issuance of standards and guidance for these kinds of engagements has occurred throughout the industrialised world, the standards issued in major industrialised common law countries are those that have had the most influence on the development of ISA 100 “Assurance Engagements”. This is in part due to the advances made in standard setting in this area by those countries in the last ten years, but is in part also due to the internal structure of the IAASB (then the IAPC), in which the initial work on particular standards is delegated to a subcommittee. The membership of the IAPC Assurance Subcommittee included members drawn from standard setters and professions in the USA, UK, Canada, Australia (chair), Brazil, Hong Kong and the Netherlands – that is, the standard setters from the major industrialised common law jurisdictions were members of this subcommittee. A comparison of ISA 100 with the standards issued in the common law countries whose members participate on the subcommittee indicates that the influence of the standard setters from the major industrialised common law countries is pervasive, even if there are critical issues upon which these standard setters do not agree.
- (3) Consequently, this review of the background necessary to place the analyses in the main body of the report into context will focus on the significant standard setting developments that took place in those major industrialised common law countries prior to the issuance of the first IFAC exposure draft of the standard on assurance engagements in 1997. Nevertheless, it should be recognised that the standards issued in these countries are subject to paradigms unique to common law countries that may or may not be applicable in other jurisdictions, and that major standard setters in civil law jurisdictions have also issued pronouncements and guidance in this area.

2. INITIAL DEVELOPMENTS IN THE UK

- (4) An early attempt to deal with practitioners’ reports on financial information other than historical financial statements was Statement 908 “Accountants’

Reports on Profit Forecasts” issued in 1978 by the Councils of The Institute of Chartered Accountants in England and Wales (ICAEW), The Institute of Chartered Accountants in Scotland (ICAS), The Institute of Chartered Accountants in Ireland (ICAI) and The Association of Certified Accountants (now known as The Association of Certified Chartered Accountants or ACCA). This Statement covered reports on profit forecasts under the regulations of The Stock Exchange or the rules of the City Code, but was also considered to be of assistance to practitioners reporting on other profit forecasts.⁴⁹⁴

- (5) This statement speaks of a “review of the profit forecast” (but at the same time of “the examination” of the accounting policies and calculations) and does not require the practitioner to assume responsibility for the assumptions, other than to report on those that appear to them to be unrealistic or those that were omitted which appear to them to be important. In the report the practitioner is required to express an opinion on whether the profit forecast, so far as the accounting policies and calculations are concerned, were properly compiled on the basis of the assumptions made and whether the profit forecast is presented on a basis consistent with the accounting policies normally adopted by the company.⁴⁹⁵ The Statement addressed neither the level of assurance provided nor engagement risk.
- (6) In 1984 the Auditing Practices Committee (APC) of the Consultative Committee of Accountancy Bodies (CCAB) of the United Kingdom (UK) issued the Audit Brief “Special Reports of Accountants” (also known as Statement 906), which was primarily directed at bodies requiring special reports, but was also designed to be of use to accountants in determining the wording of prescribed form special reports. In the Audit Brief, special reports encompass those reports in which an accountant is asked report on particular aspects of financial activity, usually in support of statements of figures or other information prepared by their clients for specific purposes. As part of the engagement the accountants reports his findings and conclusions by expressing an opinion on the information. Reports on audited financial statements, prospectuses and profit forecasts, comfort letters associated with published documents or circulars, valuations and the preparation of financial statements or information on which no opinion is expressed were explicitly excluded from the scope of the Audit Brief.⁴⁹⁶
- (7) Special emphasis was placed in the Audit Brief on distinguishing the reporting of findings and conclusions by expressing an opinion as opposed to the certification of facts and that the accountant can generally only provide

⁴⁹⁴ APB 2000, *Auditing and Reporting*, ICAEW Statement 908: *Accountants report on profit forecasts*, pp. 1369-1371

⁴⁹⁵ APB 2000, *Auditing and Reporting*, ICAEW Statement 908: *Accountants report on profit forecasts* pp. 1374-1376

⁴⁹⁶ APB 2000, *Auditing and Reporting*, ICAEW Statement 906: *Special reports of accountants*, pp. 1347-1348

reasonable assurance rather than absolute certainty.⁴⁹⁷ Although a link between assurance and certainty was intimated thereby, no definition of assurance or description of its nature was provided by the Audit Brief.

- (8) In subsequent years the CCAB's Auditing Practices Board (APB), which replaced the APC, and the ICAEW issued a number of pronouncements dealing with engagements in relation to subject matter other than financial statements. These included the ICAEW Guidance on Auditing and Reporting FRAG 21/94 "Reports on Internal Controls of Investment Custodians Made Available to Third Parties", which was originally issued in 1994 but was revised by AUDIT 4/97 in 1997⁴⁹⁸, and the APB Statement of Standards for Reporting Accountants "Audit Exemption Reports"⁴⁹⁹, which was also issued in 1994. Furthermore, in 1997 the APB issued Statements of Investment Circular Reporting Standards.⁵⁰⁰
- (9) FRAG 21/94 (Revised) speaks of "The reporting accountants' review" and the fact that the work should be planned so as to have a *reasonable expectation* of detecting significant exceptions in respect of the control procedures specified⁵⁰¹. The APB Statement of Standards for "Audit Exemption Reports", on the other hand, refers the provision of a *reasonable basis* on which to express the opinions that are to be provided in the report⁵⁰².
- (10) Interestingly, the APB Statement "Investment Circulars and Reporting Accountants" states "The extent to which they [the reporting accountants] are required to go further and test the information and explanations received will depend upon their specific instructions, the degree of assurance (if any) they [the reporting accountants] are to provide and the requirements of relevant professional standards." In addition, the Statement states, "Because of the wide range of characteristics of the subject matter of reporting accountants' engagements, the level of assurance provided by the reporting accountants also varies considerably. To avoid any misunderstanding by the user of the report or letter as to the scope of the opinion or the level of assurance provided, it is important that the subject matter is clearly identified and that the reporting accountants' opinion or other assurance is expressed in terms that are appropriate to the particular engagement."⁵⁰³

⁴⁹⁷ APB 2000, *Auditing and Reporting*, ICAEW Statement 906.8-.13

⁴⁹⁸ APB 2000, *Auditing and Reporting*, ICAEW Statement 912 p. 1389 - 1403

⁴⁹⁹ APB 2000, *Auditing and Reporting*, APB Statement of Standards for Reporting Accountants, SSRA Audit exemption reports, pp. 339

⁵⁰⁰ APB 2000, *Auditing and Reporting*, APB Statement of Investment Circular Reporting Standards, p. 361

⁵⁰¹ APB 2000, *Auditing and Reporting*, ICAEW Statement 912 par. 17-18

⁵⁰² APB 2000, *Auditing and Reporting*, APB Statement of Standards for Reporting Accountants, SSRA Audit exemption reports, par. 1

⁵⁰³ APB 2000, *Auditing and Reporting*, *APB Statements of Investment Circular Reporting Standards*, par. 45 & 64

- (11) This APB Statement shows the influence of developments in standard setting in the United States of America (USA) for engagements outside of financial statement audits in that the statement establishes a link between the work effort (the extent of their procedures) and the degree of assurance and thereby presumes that there are different levels of assurance, but, unlike the standards in the USA, the level of assurance also depends upon the characteristics of the subject matter. Furthermore, the Statement requires accountants to prevent misunderstanding by clearly identifying the subject matter and by expressing either an opinion or other assurance in terms appropriate to the particular engagement. At this stage, it would be appropriate to review the standard setting developments that had taken place in North America for these kinds of engagements.

3. INITIAL DEVELOPMENTS IN CANADA

- (12) In 1979, the Auditing Standards Board (ASB) of the Canadian Institute of Chartered Accountants (CICA) had issued a recommendation that when an auditor is engaged to express an opinion on financial information [other than financial statements] the auditor should comply with the general and examination standards applicable to financial statement audits. With this recommendation, the CICA established the basis upon which audits of financial information other than financial statements would be carried out. This implied that such an engagement would be directed towards the acquisition of reasonable assurance, just like in a financial statement audit and that the nature, timing and extent of audit procedures required to achieve this level of assurance would be applied in analogy to a financial statement audit.⁵⁰⁴
- (13) In 1987, the ASB issued CICA Handbook Section 5020 on “Association”. The term “association” was used to indicate a public accountant’s involvement with an enterprise or with information issued by that enterprise.⁵⁰⁵ Unlike the AICPA, which issues its own Code of Professional Conduct despite the existence of such codes at a state level given the legal organisation of CPA’s at this level⁵⁰⁶, Canadian Chartered Accountants (CA’s) are organised at a provincial level and are required to comply with the codes of professional conduct issued by their respective provincial institutes.
- (14) In a sense, the standard on association issued by the CICA represents the link between the CICA standards covering the services that CA’s perform and the requirements of the provincial codes of professional conduct. This link is achieved by relating the degree of professional responsibility that the public accountant assumes when he or she associates himself or herself with

⁵⁰⁴ CICA 2001, *Handbook Vol. I*, Section 5805.03

⁵⁰⁵ CICA 2001, *Handbook Vol. I*, Section 5020.01

⁵⁰⁶ AICPA 2000, *Professional Standards Volume II*, Code of Professional Conduct

information to the nature and extent of the public accountant's involvement with that information.⁵⁰⁷ In other words, the auditor assumes more responsibility and hence risk, the greater the extent of his or her involvement (for example, in providing more rather than less assurance) with information. By setting up a framework for all kinds of services provided by public accountants, this standard helps provide a basis for distinguishing the essential characteristics of different kinds of engagements.

- (15) In the following years, the ASB of the CICA issued a number of standards that deal with different kinds of practitioner association with subject matter. First, the ASB issued CICA Handbook Section 5900 on "Opinions on Control Procedures at a Service Organisation" in 1987. This Standard only covers the issuance of opinions on the control procedures with reasonable assurance⁵⁰⁸.
- (16) Furthermore, in 1989 a series of standards were issued, including CICA Handbook Section 8100 "General Review Standards", which provided the general guidance for reviews of financial statements, other financial information and compliance with agreements and regulations. This general standard distinguishes the level of assurance obtained in a review as being lower than that in an audit (and links this level of assurance to the term "plausibility"), emphasises the appropriateness of the criteria applied in the evaluation of the subject matter, and the link to the types of procedures applied (enquiries, analytical procedures and discussion). In addition, the standard requires an expression of negative assurance or that no assurance can be provided.⁵⁰⁹ Additional guidance for the review of financial information other than financial statements was provided in CICA Handbook Section 8500, and for reviews of compliance with agreements and regulations CICA Handbook Section 8600 was issued.
- (17) Moreover, in 1989 the ASB also issued an Assurance and Related Services Guideline (AuG-6) "Examination of a Financial Forecast or Projection Included in a Prospectus or Other Offering Document", which did not address the level of assurance achieved, but left the impression reasonable assurance had been achieved by referring to the report as an "auditor's report" and to the conclusions as an "opinion".⁵¹⁰
- (18) In January 1992 the ASB updated Handbook Section 5805 on special reports and added an introduction (Handbook Section 5800) as well as a new Handbook Section 5815 "Special Reports: Audit Reports on Compliance with Agreements, Statutes and Regulations". The previous position, in which these kinds of engagements were referred to as audits (and the reports "auditors'

⁵⁰⁷ CICA 2001, *Handbook Vol. I*, Section 5020.06

⁵⁰⁸ CICA 2001, *Handbook Vol. I*, Section 5900.13

⁵⁰⁹ CICA 2001, *Handbook Vol. I*, Section 8100

⁵¹⁰ CICA 2001, *Handbook Vol. II*, AuG-6: Examination of a Financial Forecast or Projection Included in a Prospectus or Other Offering Document

reports” with an “opinion”) and that reasonable assurance is to be obtained, was made explicit.⁵¹¹ To complete the engagement types available, in 1992 CICA Handbook Section 9100 “Reports on the Results of Applying Specified Audit Procedures to Financial Information Other than Financial Statements” was also issued.⁵¹²

- (19) CICA Assurance and Related Services Guideline (AuG-13) “Special Reports on Regulated Financial Institutions”⁵¹³ issued in 1992, which referred to Handbook Sections 5800, 5805 and 5815 on Special Reports as well as to Handbook Section 9100 for agreed-upon procedures engagements, includes guidance on nonderivative reporting engagements. CICA Handbook Section 7600 “Reports on the Application of Accounting Principles, Auditing Standards or Review Standards”, which did not specify any level of assurance, but did require sufficient appropriate audit evidence to afford a reasonable basis to support the content of the report and called the conclusion an “opinion”.⁵¹⁴
- (20) In March 1997, the ASB issued CICA Handbook Section 5025 “Standards for Assurance Engagements”. Unlike the American approach (see the following section), the CICA assurance standard encompasses both direct reporting engagements, in which the practitioner would reach a conclusion directly on the subject matter using suitable criteria, and attest engagements in which the conclusion would be reached on a written assertion.⁵¹⁵ In addition, agreed-upon procedures engagements were generally scoped out of the assurance standard, which requires assurance engagements to lead to the expression of a conclusion.⁵¹⁶
- (21) Like the AICPA Attestation Standards, the CICA Assurance Standards establish a clear inverse relationship between engagement (rather than attestation) risk and the level of assurance, divide the applicable levels of assurance in high and moderate for audit (rather than examination) and review engagements, respectively, and establish a direct relationship between the nature and extent of procedures performed and the level of assurance obtainable. Furthermore, both sets of standards view suitable criteria as being a prerequisite for the conduct of these kinds of engagements. Nevertheless, the CICA Standards do go beyond the American standard on a number of issues.⁵¹⁷
- (22) First, the CICA Standards define engagement risk as encompassing the risk of incorrect rejection as well as incorrect acceptance. Second, the term high level

⁵¹¹ CICA 2001, *Handbook Vol. I*, Sections 5800, 5805 and 5815

⁵¹² CICA 2001, *Handbook Vol. I*, Section 9100

⁵¹³ CICA 2001, *Handbook Vol. II*, AuG-13: Special Reports on Regulated Financial Institutions

⁵¹⁴ CICA 2001, *Handbook Vol. I*, Section 7600

⁵¹⁵ CICA 2001, *Handbook Vol. I*, Section 5025.05

⁵¹⁶ CICA 2001, *Handbook Vol. I*, Section 5025.14

⁵¹⁷ CICA 2001, *Handbook Vol. I*, Section 5025.11 and .12

of assurance is defined as “... the highest reasonable level of assurance a practitioner can provide concerning subject matter” and the term moderate level of assurance is defined as “... the risk of an inappropriate conclusion is reduced to a moderate level through procedures which are normally limited to enquiry, analysis and discussion ... when the evidence obtained enables the practitioner to conclude the subject matter is plausible in the circumstances.” Third, the CICA Standards explicitly recognise that the level of assurance will also be influenced by the degree of precision associated with the subject matter itself⁵¹⁸, whereas the AICPA Standards vary only the extent to which attestation procedures are performed based on the desired level of assurance and other factors.⁵¹⁹

- (23) While there are other important differences between the CICA Assurance Standards and the AICPA Attestation Standards at that time, these will be examined more closely as part of other analyses in this issues paper. A review of the standard setting developments in the United States follows.

4. INITIAL DEVELOPMENTS IN THE USA

- (24) In 1982 the Auditing Standards Board of the AICPA issued the Statement of Position (SOP) 10/82 entitled “Report on a Financial Feasibility Study”⁵²⁰, which was subsequently superseded by the AICPA Guide for Prospective Financial Statements, 1986. As part of an initiative to provide standards and guidance for certified public accountants (CPA’s) in the USA involved in performing engagements on future-oriented financial information, in 1985 the Auditing Standards Board, the Accounting and Review Services Committee and the Management Consulting Services Committee of the American Institute of Certified Public Accountants (AICPA) issued the first of what came to be collectively known as “Statements on Standards for Attestation Engagements” for financial forecasts and projections.⁵²¹ This was followed in 1986 by the AICPA Audit and Accounting Guide “Guide for Prospective Financial Statements”. It should be noted that these pronouncements address only compilation and examination engagements and agreed-upon procedures engagements for prospective financial information, not review engagements.⁵²²
- (25) Due to the increasing involvement of CPA’s in the performance of engagements on subject matter other than financial statements and future-oriented financial information, in 1986 the above-noted bodies of the AICPA issued the Statement on Standards for Attestation Engagements “Attestation

⁵¹⁸ CICA 2001, *Handbook Vol. I*, Section 5025.11 and .12

⁵¹⁹ AICPA 2001, AT §100.42, 1996

⁵²⁰ AICPA 2000, *Technical Practice Aids*, p. 30211

⁵²¹ AICPA 1996, *Codification of Statements on Auditing Standards (Including Statements on Standards for Attestation Engagements)* Nos. 1 to 79, p. 11

⁵²² AICPA 1996, AT §200

Standards”,⁵²³ which provides a general statement on standards for the conduct of so-called “attest engagements”. This Statement established a general standard for the conduct of a wide range of attest services beyond those limited to expressing a positive opinion on historical financial statements in accordance with auditing standards generally accepted in the United States (US GAAS)⁵²⁴. An attest engagement was defined as “...one in which a practitioner is engaged to issue or does issue a written communication that expresses a conclusion about the reliability of a written assertion that is the responsibility of another party”⁵²⁵.

- (26) Additional Statements on Standards for Attestation Engagements were issued in the following years (“Attest Services Related to MAS Engagements” in 1987 and “Reporting on Pro Forma Financial Information” in 1988). In 1989, these Statements were incorporated into the Codification of Statements on Standards for Attestation Engagements.⁵²⁶ It is noteworthy that review engagements were explicitly deemed appropriate for engagements in relation to pro-forma financial information in AT §300⁵²⁷, even though prohibited for prospective financial information in AT §200.
- (27) In the 1989 Codification, the term “assurance” was mentioned in connection with its provision on subjective assertions⁵²⁸ and in connection with the inability to provide the negative assurance of a review engagement when an examination engagement providing the highest level of assurance (a positive opinion) on an assertion is not possible.⁵²⁹ Furthermore, an “examination” was defined as being an attest engagement designed to provide the highest level of assurance on an assertion, in which attestation risk is limited to an appropriately low level.⁵³⁰ A “review”, on the other hand, was defined as a limited assurance engagement through which attestation risk is limited to a moderate level; this is accomplished by generally limiting procedures to inquiry and analytical procedures.⁵³¹
- (28) While attestation risk was defined in the standard in an analogous fashion to the definition of audit risk⁵³² and an inverse relationship between attestation risk and assurance established, assurance as such was not specifically defined in either the attestation or auditing standards. Nevertheless, a direct relationship between the level of assurance and the extent to which attestation

⁵²³ AICPA 1996, p. 11

⁵²⁴ AICPA 1996, p. 745

⁵²⁵ AICPA 1996, AT §100.01

⁵²⁶ AICPA 1996, p. 11

⁵²⁷ AICPA 1996, AT § 300.17

⁵²⁸ AICPA 1996, AT § 100.18

⁵²⁹ AICPA 1996, AT § 100.21

⁵³⁰ AICPA 1996, AT §100.39

⁵³¹ AICPA 1996, AT §100.40

⁵³² AICPA 1996, AT §100.31, Footnote 7 and AICPA AUS § 312.02 in conjunction with footnote 3

procedures have been performed in connection with other factors was established.⁵³³

- (29) In 1991, the AICPA established the “Special Committee on Financial Reporting” (SCFR), or so-called “Jenkins Committee”, which was charged with reviewing the relevance of external financial reporting for both users internal and external to entities. The Committee’s report “Improving Business Reporting – A Customer Focus” recommended, among other things, the publication of nonfinancial data, background information and prospective financial information, more management analysis of data, and a more flexible arrangement for examinations of this information for stakeholders. As part of this rearrangement, the qualification of auditors and the coverage of standards should be broadened to include the examination of this information.⁵³⁴
- (30) Having redesignated the currently codified sections of the Statements on Standards for Attestation Engagements (SSAE) in 1993 as SSAE No. 1, in the same year the AICPA issued an additional SSAE No. 2 entitled “Reporting on an Entity’s Internal Control Structure Over Financial Reporting” followed by SSAE No. 3 “Compliance Attestation.”⁵³⁵ Only examination engagements were addressed in SSAE No. 2⁵³⁶, whereas SSAE No. 3⁵³⁷ also addressed agreed-upon procedures engagements. Neither addressed review engagements. In addition, SOP 10/82 was replaced by SOP 89-3 “Questions Concerning Accountants’ Services on Prospective Financial Information”, which was subsequently supplemented by SOP 91-1 and SOP 92-2.⁵³⁸
- (31) Furthermore, in 1989 and ensuing years the AICPA issued a number of SOP dealing with engagements examining internal controls. These included SOP 89-4 “Reports on the Internal Control Structure in Audits of Brokers and Dealers in Securities” (which was superseded by the AICPA Audit and Accounting Guide “Brokers and Dealers in Securities” in 1997), SOP 89-7 “Report on the Internal Control Structure in Audits of Investment Companies”, SOP 90-2 “Report on the Internal Control Structure in Audits of Futures Commission Merchants”, and SOP 90-9 “The Auditor’s Consideration of the Internal Control Structure Used in Administering Federal Financial Assistance Programs Under the Single Audit Act (which was superseded by SOP 92-7 “Audits of State and Local Government Entities Receiving Federal Financial Assistance).⁵³⁹

⁵³³ AICPA 1996, AT §100.42

⁵³⁴ K.-U. Marten and A.G. Köhler, pp. 436-437

⁵³⁵ AICPA 1996, pp. 11-12

⁵³⁶ AICPA 1996, § AT 400

⁵³⁷ AICPA 1996, § AT 500

⁵³⁸ AICPA 2000, *Technical Practice Aids*, pp. 30212-30215

⁵³⁹ AICPA 2000, *Technical Practice Aid*, pp. 30212-30214

- (32) By 1994, together with the CICA, the AICPA had established the “Special Committee on Assurance Services” (SCAS), also known as the “Elliot Committee”, which was responsible for identifying services beyond financial statement audits to secure the future of the profession. In addition, potential opportunities for the profession and the measures necessary for the profession to take advantage of these opportunities were examined.⁵⁴⁰
- (33) In contrast to the inverse relationship indicated between attestation risk and the level of assurance and the direct relationship between the extent of procedures and the level of assurance in its attestation standards, the AICPA defined assurance services as “independent professional services that improve the quality or context of information for decision makers.”⁵⁴¹ Under this rather broad definition, assurance services would encompass not only attest engagements (including agreed-upon procedures engagements), but also compilation engagements and other services that fall under this definition.⁵⁴²
- (34) As part of the expansion of attest engagements for which professional standards and guidance exist, in 1995 the AICPA issued SSAE No. 4 “Agreed-Upon Procedures Engagements” and in 1998 issued SSAE No. 8 “Management’s Discussion and Analysis”.⁵⁴³

5. INITIAL DEVELOPMENTS IN AUSTRALIA

- (35) In 1992 the Auditing Standards Board (ASB) of the Australian Accounting Research Foundation (AARF) issued an Auditing Statement entitled “Explanatory Framework for Guidance on Audit and Audit Related Services”, which was designed to describe the formal structure within which the ASB would apply existing audit guidance and would issue and develop new professional guidance in areas of current practice where demand for assurance-based services by auditor has grown.⁵⁴⁴
- (36) The Statement distinguishes between an attest audit (a written report expressing an opinion enhancing the credibility of a written assertion made by a party on a matter which is the responsibility of that party) and a direct reporting audit (a written report providing relevant and reliable information with the expression of an opinion about a matter where the party responsible for the matter does not make a written assertion).⁵⁴⁵ It should be pointed out that the concepts “credibility”, “relevant” and “reliable”, however, were not defined.

⁵⁴⁰ K.-U. Marten and A.G. Köhler, p. 437

⁵⁴¹ AICPA, *Welcome to Assurance Services*, <http://www.aicpa.org/assurance/index.htm>, August 29, 2001

⁵⁴² K.-U. Marten and A.G. Köhler, p. 436

⁵⁴³ AICPA 1998, *Codification of Statements on Auditing Standards (Including Statements on Standards for Attestation Engagements)* Nos. 1 to 85, , p. 12

⁵⁴⁴ ASB of the AARF 1992, *Auditing Statement: Explanatory Framework for Guidance on Audit and Audit Related Services*, pp. 1 and 4

⁵⁴⁵ ASB of the AARF 1992, paragraph 6

- (37) Furthermore, the Statement defines audit related services as including:
1. review engagements that should provide a moderate level of assurance, being a lower level of assurance than that provided by an audit, through the issue of a negative expression of opinion to help establish the credibility of a written assertion; and
 2. agreed-upon-procedures, in which factual findings based on the application of audit skills and procedures without the communication of a conclusion are reported. Nevertheless, other kinds of services are permitted.⁵⁴⁶
- (38) Unlike the pronouncements issued by other standard setters, the Statement defines assurance as being "...the auditor's satisfaction as to the relevance and reliability of the accountability information provided." Furthermore the Statement asserts "The degree of satisfaction achieved, and therefore the level of assurance expressed and the form of expression, is determined by the nature and extent of procedures performed by the auditor, the results of the procedures, the objectivity of the evidence obtained and the extent of the reporting by the party responsible for the accountability matter(s)".⁵⁴⁷ Hence, this assertion recognises that the nature and extent of procedures have an effect on the level of assurance obtained, but that these are not the only factors that have an effect on the level of assurance. However, the Statement does not address engagement risk, nor the relationship between engagement risk and assurance.
- (39) In addition, the statement defines audit assurance as being designed to provide a high but not absolute level of assurance, which is expressed as reasonable assurance.⁵⁴⁸ For attest engagements such a level of assurance would be expressed in form of a positive opinion,⁵⁴⁹ whereas for direct reporting engagements the audit report provides relevant and reliable information about an accountability relationship by providing representations about accountability issues and criteria as well as the auditor's opinion as to the accountability achievements of the responsible party against the identified criteria.⁵⁵⁰
- (40) A review, on the other hand, should provide a negative expression of opinion and thereby moderate assurance (i.e., less than that in an audit) based primarily on inquiry and analytical procedures. If moderate assurance cannot

⁵⁴⁶ ASB of the AARF 1992, paragraph 8

⁵⁴⁷ ASB of the AARF 1992, paragraph 14

⁵⁴⁸ ASB of the AARF, 1992, paragraph 15

⁵⁴⁹ ASB of the AARF, 1992, paragraph 17

⁵⁵⁰ ASB of the AARF 1992, paragraph 18

be attained, no assurance should be expressed. The Statement does not permit the performance of review engagements for direct reporting.⁵⁵¹

- (41) In summary, while the Statement has features in common with the AICPA Attestation Standards, the Australian Statement adds concepts not found in the US pronouncements.
- (42) In 1992, the ASB also issued the standard AUP 33 Performance Auditing, which was codified as AUS 810 Performance Auditing in 1995, which then replaced AUP 33 as AUS 806 in 1995 (and was partially revised in 1999).⁵⁵² Of particular interest in this standard is the explanation of the word “reasonable” in paragraph 12 for the term “reasonable assurance” discussed in paragraph 11. Paragraph 12 states:

“What is “reasonable” in any given situation will depend on the facts of that situation and is to be determined by what evidence could reasonably be expected to be gathered and what conclusions could reasonably be expected to be drawn in the particular situation”.⁵⁵³
- (43) Paragraph 13 goes on to speak of the way the work of the auditor is permeated by judgement and (in paragraph 14) the inherent limitations of an audit and appears to implicitly link the level of assurance inversely to the level of audit risk..⁵⁵⁴
- (44) AUS 808 “Planning Performance Auditing” was issued as a complementary standard to AUS 806 in 1995. Of particular relevance to this Paper is paragraph 18 on auditability which states that auditability relates to assessing whether particular matters can be included within the audit scope in terms of whether suitable criteria are available or can be established, audit evidence is likely to be available and appropriate audit approaches and methodologies are available or can be developed.⁵⁵⁵ In addition, treatment in AUS 808 of the suitability of criteria – and especially the characteristics of suitable criteria⁵⁵⁶ – appear to have provided much of the basis for ISA 100.
- (45) In 1993 the ASB in Australia issued AUP 36 “The Audit of Prospective Financial Information”, which was codified in 1994 and thereby replaced by AUS 804 in 1995 and further revised in 1998.⁵⁵⁷ This particular standard is of interest because paragraph 10 asserts that a positive opinion cannot be expressed on whether the assumptions are free of material misstatement. Furthermore, it states that an auditor can therefore provide only a moderate

⁵⁵¹ ASB of the AARF 1992, paragraphs 20, 21, and 22

⁵⁵² National Councils, *Auditing Handbook 2001*, AUS 806.

⁵⁵³ National Councils, *Auditing Handbook 2001*, AUS 806.12

⁵⁵⁴ National Councils, *Auditing Handbook 2001*, AUS 806.13-14

⁵⁵⁵ National Councils, *Auditing Handbook 2001*, AUS 808.29-.36

⁵⁵⁶ National Councils, *Auditing Handbook 2001*, AUS 808.29-.34

⁵⁵⁷ National Councils, *Auditing Handbook 2001*, AUS 804

level of assurance by issuing a statement of negative assurance on the reasonableness of management's best-estimate assumptions.

- (46) In conclusion, it would be fair to say that the work by the ASB appears to have had a significant impact on the development and content of the assurance-related IFAC exposure drafts and on ISA 100. In particular, the characteristics of suitable criteria in AUS 808 appear to have been more or less adopted by ISA 100. It can also be seen that AUS 804 definitely subscribes to the variables approach, since moderate assurance is used as an alternative level of assurance when it is believed that high assurance cannot be given.

6. INITIAL DEVELOPMENTS IN CIVIL LAW JURISDICTIONS: THE GERMAN EXAMPLE

- (47) To contrast the civil law approaches to those of common law jurisdictions and to demonstrate why civil law standard setters had less influence on the development of ISA 100, a short summary of the historical development of pronouncements with respect to engagements not in relation to financial statements performed by the German profession, which has a long standard setting history within a civil law environment, has been included in this background information.
- (48) In 1977 the Institut der Wirtschaftsprüfer in Deutschland e.V. [Institute of Public Auditors in Germany, Incorporated Association] (IDW) issued Fachgutachten 1/1977 Grundsätze ordnungsmäßiger Durchführung von Abschlußprüfungen [Technical Opinion 1/1977 Generally Accepted Standards for the Conduct of Financial Statement Audits] (which replaced Fachgutachten 1/1967)⁵⁵⁸, Fachgutachten 2/1977 Grundsätze ordnungsmäßiger Berichterstattung bei Abschlußprüfungen [Technical Opinion 2/1977 Generally Accepted Standards for the Issuance of Long-form Audit Reports in Financial Statement Audits] (which replaced Fachgutachten 1/1970)⁵⁵⁹, and Fachgutachten 3/1977 Grundsätze für die Erteilung von Bestätigungsvermerken bei Abschlußprüfungen [Technical Opinion 3/1977 Standards for the Issuance of Auditors' Reports in Financial Statement Audits] (which replaced the Statement of Position HFA 3/1965)⁵⁶⁰.
- (49) While these pronouncements dealt with statutory annual financial statement audits, because the scope of such audits extended to the issuance of an opinion on whether the bookkeeping system and management report are in

⁵⁵⁸ IDW 1977, *Grundsätze ordnungsmäßiger Durchführung von Abschlußprüfungen* – German-English Synoptic Translation, p. 3D

⁵⁵⁹ IDW 1977, *Grundsätze ordnungsmäßiger Berichterstattung bei Abschlußprüfungen* – German-English Synoptic Translation, p. 14D

⁵⁶⁰ IDW 1977, *Grundsätze für die Erteilung von Bestätigungsvermerken bei Abschlußprüfungen* – German-English Synoptic Translation, p. 25D

accordance with the law and the articles of incorporation⁵⁶¹, in effect the statutory annual financial statement audit in Germany encompassed a compliance audit for a part of the internal control system and for information not part of the financial statements. Fachgutachten 1/1977 states that the financial statement auditor must determine the audit procedures to enable a reliable assessment of whether the accounting (bookkeeping system, annual financial statements and management report) complies with the law and principles of proper accounting.⁵⁶² It is apparent that the required “reliable” assessment also covers the compliance of the bookkeeping system and the management report with the law and principles of proper accounting. The other point of note is the basis in legal requirements for the audit of subject matter that are not financial statements.

- (50) In 1978 the IDW issued *Stellungnahme des Wohnungswirtschaftlichen Fachausschusses WFA 1/1978* [Statement of Position of the Technical Committee for Economic Dwellings WFA 1/1978], which dealt with the audit of those engaging in a commercial business pursuant to § 34c of the Commercial Business Law in accordance with § 16 of the Broker and Builder Law, which represents an audit of compliance with the law. This pronouncement was supplemented by WFA 1/1982, which covers the requirements for the long-form audit report pursuant to § 16 (1) of the Broker and Builder Law for this audit. In this case the genesis of the audit and hence the audit standards for an area not dealing with financial statements is to be found in legislation. Since neither the level of assurance nor audit risk were explicitly addressed, these may be presumed to apply in an analogous fashion to those in a financial statement audit.⁵⁶³
- (51) Furthermore, in 1980 the IDW issued the Pronouncement of the Technical Committee on Hospitals KHFA 1/1980, which deals with the audit criteria for an efficiency audit of hospitals as required by § 16 (3) of the Federal Health Care Law. The pronouncement arose from recognition that there were no generally accepted efficiency criteria that would allow a consistent assessment of efficiency in the hospitals as required by law. This particular pronouncement was designed to help remedy the problem of insufficiently definitive criteria.⁵⁶⁴
- (52) To assist statutory financial statement auditors in forming an opinion on whether the bookkeeping system complied with the law and principles of proper accounting, in 1979 the IDW issued a *Stellungnahme des Fachausschusses für moderne Abrechnungssysteme FAMA 1/1987*

⁵⁶¹ IDW 1977, *Grundsätze ordnungsmäßiger Berichterstattung bei Abschlußprüfungen* – German-English Synoptic Translation, p. 3D

⁵⁶² IDW 1977, *Grundsätze ordnungsmäßiger Durchführung von Abschlussprüfungen*, p. 7D

⁵⁶³ IDW 2000, *Die Fachgutachten und Stellungnahmen*, WFA 1/1978 i.d.F. 1998: Zur Prüfung Gewerbetreibender i.S.d. § 34c Abs. 1 der GewO gem. § 16 Makler & Bauträgerverordnung (MaBV)

⁵⁶⁴ IDW 2000, *Die Fachgutachten und Stellungnahmen*, KHFA 1/1980: Zu den Prüfungskriterien für Wirtschaftlichkeitsprüfungen von Krankenhäusern.

Grundsätze ordnungsmäßiger Buchführung bei computergestützten Verfahren und deren Prüfung [Statement of Position of the Technical Committee for Modern Accounting Systems FAMA 1/1987 Generally Accepted Accounting Principles for Computer-assisted Procedures and the Audit Thereof], which was updated in 1993. In this particular Statement, the IDW specified the criteria deduced from the law for a computerised accounting system and addressed how such a system should be audited for compliance with the law.⁵⁶⁵

- (53) Of particular interest is the Stellungnahme WFA 1/1987 Grundsätze ordnungsmäßiger Durchführung von Prospektprüfung [Statement of Position WFA 1/1987 Generally Accepted Conduct of Audits of Prospectuses], which replaced WFA 1/1983. This pronouncement distinguishes between those items in a prospectus that are to be regarded as auditable versus those that are not susceptible to audit (unauditable). The Statement required a reliable opinion on the correctness and completeness of those items that are auditable. So that criteria for the evaluation of the prospectuses are available, the Statement included an appendix that delineated the requirements for the contents of a prospectus. Of particular note is the fact that, unlike the other IDW pronouncements for audits of subject matter that are not financial statements, this particular pronouncement was issued despite there not being any legal requirement for an audit of prospectuses.⁵⁶⁶
- (54) In 1988 the IDW issued the Stellungnahme des Hauptfachausschusses HFA 6/1988 Zur Verschmelzungsprüfung nach § 340b Abs. 4 AktG [Statement of Position of the Main Technical Committee HFA 6/1988 On the Audits of Mergers Pursuant to § 340b (4) of the German Stock Corporation Act], which related to an opinion by the auditor of the merger, as to whether the proposed share exchange ratio in connection with other consideration is appropriate. Moreover, the long-form audit report should include a description of the methods used to determine the ratio with reasoning justifying the application of these methods. In this respect, this pronouncement represents an assurance engagement for business valuations.⁵⁶⁷
- (55) In 1988 the IDW replaced its Fachgutachten 1, 2 and 3/1977 mentioned above with corresponding Fachgutachten 1,2 and 3/1988. However, from an assurance standard point of view, no fundamental change occurred in the required level of assurance, etc.⁵⁶⁸

⁵⁶⁵ IDW 2000, *Die Fachgutachten und Stellungnahmen*, FAMA 1/1987 i.d.F. 1993: Grundsätze ordnungsmäßiger Buchführung bei computergestützten Verfahren und deren Prüfung

⁵⁶⁶ IDW 2000, *Die Fachgutachten und Stellungnahmen*, WFA 1/1987: Grundsätze ordnungsmäßiger Durchführung von Prospektprüfungen

⁵⁶⁷ IDW 2000, *Die Fachgutachten und Stellungnahmen*, HFA 6/1988: Zur Verschmelzungsprüfung nach § 340 Abs. 4 AktG

⁵⁶⁸ IDW 2000, *Die Fachgutachten und Stellungnahmen*, FG 1/1988: Grundsätze ordnungsmäßiger Durchführung von Abschlußprüfungen, FG 2/1988 superseded by IDW PS 450: Grundsätze

- (56) Another example of the extension of the statutory financial statement audit beyond the audit of just the financial statements is the requirement pursuant to § 313 (1) Stock Corporation Act to audit the Report by the Executive Board of an Aktiengesellschaft [German Stock Corporation] on relationships with a parent company or subsidiaries (pronouncement: HFA 1/1983). In this respect, the requirements of the Fachgutachten 1, 2 and 3/1988 with respect to audit intensity (work effort) and assurance applied.⁵⁶⁹
- (57) In 1993 the IDW issued a Stellungnahme des Bankenfachausschusses BFA 1/1993 Zur Börsenmaklerprüfung nach § 8a BörsG [Statement of Position of the Banks Technical Committee 1/1993 On the Audit of Exchange Brokers Pursuant to § 8a of the Stock Exchange Law]. In addition to a statutory financial statement audit, exchange brokers' compliance with legal requirements and their economic capability as a prerequisite for the proper exercise of exchange trades are subject to audit. Again, the Statement refers to the analogous applicability of the Fachgutachten for the conduct and reporting for the audit.⁵⁷⁰ Consequently, the level of assurance and extent of procedures required for a financial statement audit would be applicable.
- (58) In conclusion, it is fair to say that standard setting for a civil law country like Germany is subject to a different paradigm than that prevalent in common law jurisdictions. In particular, the broad sweep of legislative requirements causes audits of financial statements to cover more than just the financial statements and is the genesis for most audits of other subject matter outside of a pure financial statement audit. Consequently, the audit standards have concentrated on ensuring that legal requirements for these audits are appropriately interpreted and satisfied by such audits rather than addressing fundamental problems of audit theory.
- (59) Nevertheless, it should be recognised that some of these standards did distinguish between auditable and unauditable subject matter and did determine that specific criteria are a prerequisite for reaching consistent opinions. Furthermore, while the requirement for a reliable opinion was set forth in the auditing standards, the degree of reliability was a matter of gewissenhafter Berufsausübung [literally, conscientious exercise of one's profession: a concept similar to "due professional care" in common law countries] and the relationship between audit risk, materiality and assurance was not described. This is probably one of the reasons that moderate assurance engagements were not specifically addressed, even though so-

ordnungsmäßiger Berichterstattung bei Abschlußprüfungen and FG 3/1988 superseded by IDW PS 400: Grundsätze für die Erteilung von Bestätigungsvermerken bei Abschlußprüfungen.

⁵⁶⁹ IDW 2000, *Die Fachgutachten und Stellungnahmen*, HFA 1/1983: Zur Widerlegung der Abhängigkeitsvermutung nach § 17 Abs. 2 AktG

⁵⁷⁰ IDW 2000, *Die Fachgutachten und Stellungnahmen*, BFA 1/1993: Zur Börsenmaklerprüfung nach § 8a BörsG (Aufgehoben 2000)

called “eingeschränkte Prüfungen” [literally, audits of limited scope] were addressed in the Fachgutachten.

- (60) In addition, the civil law legal tradition of analogous and teleological interpretation and extrapolation of existing law led to the analogous application and the extension of the application of existing standards to other subject matter, rather than to the development of an overall attestation or assurance standard. Overall, these problems are symptomatic of most civil law jurisdictions, which appears to account in part for their standards having less influence on the development of ISA 100 than those standards from common law jurisdictions. Furthermore, the impact of the language barrier on the influence of standards from civil law jurisdictions on the development of ISA 100 should not be underestimated.

7. THE IFAC RESPONSE

- (61) The IAPC (now the IAASB) had developed a number of standards for engagements not relating to financial statements as part of the codification of the International Auditing Guidelines into International Standards on Auditing (ISA) in 1994, including ISA 800 “The Auditor’s Report on Special Purpose Audit Engagements”, ISA 810 “The Examination of Prospective Financial Information”, ISA 910 “Engagements to Review Financial Statements” (which also covered, to the extent practicable, the review of financial or other information). Furthermore, as part of the codification the ISA 920 “Engagements to Perform Agreed-Upon Procedures Regarding Financial Information” and ISA 930 “Engagements to Compile Financial Information” were also issued.⁵⁷¹
- (62) ISA 800 covers not only Reports on Financial Statements Prepared in Accordance with a Comprehensive Basis of Accounting other than International Accounting Standards or National Standards, Reports on a Component of Financial Statements and Reports on Summarised Financial Statements, but also Reports on Compliance with Contractual Agreements; in other words, it also includes a report on subject matter not related to financial statements. ISA 800 also presumed that the other ISA with respect to objectives (reasonable assurance), audit risk and internal control, audit evidence, etc. apply.⁵⁷² Nevertheless, it was recognised that there are other subject matters in addition to these upon which a professional accountant may be asked to report, so an additional standard for audit was needed.
- (63) In ISA 810 on engagements with respect to prospective financial information, it was stated that an auditor is not in a position to express an opinion as to whether the results shown in the prospective financial information will be

⁵⁷¹ IFAC 2001, p. 89

⁵⁷² IFAC 2001, ISA 800

achieved. Furthermore, it was asserted that, given the types of evidence available in assessing the assumptions on which the prospective financial information is based, it may be difficult for the auditor to obtain a level of satisfaction sufficient to provide a positive expression of opinion that the assumptions are free of material misstatement. Hence, generally only a moderate level of assurance (expressed negatively) is provided. Yet, the engagement is called an “examination”.⁵⁷³ ISA 910 on review engagements, on the other hand, stated that a review engagement provides a moderate level of assurance that is expressed in the form of negative assurance.⁵⁷⁴

- (64) In August 1997 the International Federation of Accountants (IFAC) issued the Exposure Draft “Proposed Framework and International Standard: Reporting on the Credibility of Information” that had been approved by the International Auditing Practices Committee (IAPC) in June 1997. This document was developed as an international response to developments in standard-setting on assurance and attestation engagements from the auditing, assurance and attestation standard setters in the major industrialised common law jurisdictions and to provide international standards and guidance to professional accountants increasingly performing these kinds of engagements on a world wide basis. The document was composed of four elements: an Explanatory Memorandum (the “Memorandum”), a Framework for Reporting by Professional Accountants on the Credibility of Information (the “Framework”), the International Standard on Reporting Service Engagements (the “Standard”) and Example Reports.⁵⁷⁵
- (65) The Memorandum explained the reasons for the issuance of the framework and general principles and its relationship to the existing ISA Framework, whereas the Framework provided a detailed description of engagement elements when professional accountants report on the credibility of information. The Standard established standards and guidance on the objectives and general principles governing an engagement by a professional accountant to report on the credibility of information. The Example Reports, on the other hand, provided examples of reports for these kinds of engagements in accordance with the Standard.⁵⁷⁶ Compilation and agreed-upon procedures engagements were generally removed from the scope of the document but both attest and direct reporting engagements were included.⁵⁷⁷

⁵⁷³ IFAC 2001, ISA 810

⁵⁷⁴ IFAC 2001, ISA 910

⁵⁷⁵ IAPC of IFAC, *Exposure Draft: Proposed Framework and International Standard – Reporting on the Credibility of Information*, 1997, Preface

⁵⁷⁶ IAPC of IFAC, *Exposure Draft: Proposed Framework and International Standard – Reporting on the Credibility of Information*, 1997, Preface

⁵⁷⁷ IAPC of IFAC, *Exposure Draft: Proposed Framework and International Standard – Reporting on the Credibility of Information*, 1997, “Explanatory Memorandum”, paragraphs 19, 36 and 37

- (66) The standard stipulated that the professional accountant should accept the engagement only if there is a reasonable basis for believing that a conclusion about the subject matter based on suitable criteria can be expressed, and only if the subject matter is identifiable and in a form which can be subjected to evidence gathering procedures, and it is reasonable to believe that the subject matter is capable of evaluation against suitable criteria.⁵⁷⁸
- (67) Furthermore, the Standard required the professional accountant and the appointing party to agree on the objective of the reporting service engagement and the level of assurance to be provided as a result. The agreed level of assurance could range from a low to an absolute level dependent upon the interaction of the following variables: the nature and form of the subject matter, the nature and form of the criteria applied to the subject matter, the nature and extent of the process used to collect and evaluate evidence, and the sufficiency and appropriateness of the evidence likely to be available.⁵⁷⁹ This led to the conclusion that in some circumstances the level of assurance will be limited by the quality of evidence obtained based on the nature and extent of the procedures and the subjective nature of the subject matter and criteria.⁵⁸⁰
- (68) In other words, the Exposure Draft adhered to the “variables approach” to assurance engagement, in which not only the work effort (engagement process) determines the level of assurance that has been provided after having ensured that a conclusion can be drawn given the subject matter and the suitability of the criteria. Nevertheless, the document neither addressed definitions of assurance and credibility nor establish a link between assurance and engagement risk. The document did attempt to define the elements required for criteria to be “suitable”.
- (69) In March 1999 IFAC issued the Exposure Draft of a proposed international standard on assurance engagements entitled “Assurance Engagements”.⁵⁸¹ In substance, this exposure draft represented a re-exposure of the previous exposure draft “Proposed Framework and International Standard: Reporting on the Credibility of Information”. The length of time involved to issue the re-exposure and the fact that it was labelled an exposure rather than a re-exposure is an indication of how controversial the underlying issues are and how different the re-exposure draft was from the original exposure draft.

⁵⁷⁸ IAPC of IFAC, *Exposure Draft: Proposed Framework and International Standard – Reporting on the Credibility of Information*, 1997, “General Principle Governing an Engagement to Report by Professional Accountants on the Credibility of Information”, paragraphs 6 and 7

⁵⁷⁹ IAPC of IFAC, *Exposure Draft: Proposed Framework and International Standard – Reporting on the Credibility of Information*, 1997, “General Principle Governing an Engagement to Report by Professional Accountants on the Credibility of Information”, paragraph 9

⁵⁸⁰ IAPC of IFAC, *Exposure Draft: Proposed Framework and International Standard – Reporting on the Credibility of Information*, 1997, “General Principle Governing an Engagement to Report by Professional Accountants on the Credibility of Information”, paragraph 20

⁵⁸¹ IAPC of IFAC, *Exposure Draft: Assurance Engagements*, March 1999

Furthermore, the title reflected that the area of emphasis in these kinds of engagements was to be “assurance”.

- (70) The partition of the previous document was considered too complicated and redundant, so the Explanatory Memorandum, the Framework and the Standard were integrated into one document. In addition, while the existence of a range of assurance was accepted as being conceptually sound, it was acknowledged as too difficult to implement in practice. Consequently, the exposure draft limited assurance engagements to two levels of assurance: high (audit) and moderate (review). Furthermore, neither the expression of negative assurance nor positive assurance was recommended for reporting the conclusion in review engagements, but that the level of assurance is moderate was to be clearly indicated. Agreed-upon procedures engagements continued to be scoped out of “assurance engagements”, but it was recognised that some of these engagement could lead to sufficient support for the expression of a conclusion. No example reports were provided to allow more flexible reporting.⁵⁸²
- (71) In contrast to the first document, the 1999 exposure draft linked high assurance to a low level of engagement risk and moderate assurance to a moderate level of engagement risk.⁵⁸³ Furthermore, engagement risk was clearly defined and was made dependent upon the nature of and form of the subject matter, the nature and form of the criteria applied to the subject matter, the nature and extent of the process used to collect and evaluate evidence and the sufficiency and appropriateness of the evidence likely to be available.⁵⁸⁴ Likewise, the level of assurance would be determined by the nature of the subject matter, criteria and by both the quantity and quality of evidence obtained.⁵⁸⁵ On this basis, moderate assurance could, for example, be either obtained by reducing the nature and extent of procedures or due to the criteria being less objective. In other words, like its predecessor, the exposure draft follows the variables approach for the determination of assurance. Nevertheless, the document still failed to provide a definition of assurance or credibility.
- (72) In June 2000 the IAPC approved and IFAC issued the Standard ISA 100 “Assurance Engagements. The standard issued was considerably different from both exposure drafts and reflects the difficulties of developing a document that could be agreed upon within the IAPC. While remaining one document, the Standard was divided into two parts: that part describing the objectives and elements of assurance engagements and that part establishing

⁵⁸² IAPC of IFAC, *Exposure Draft: Assurance Engagements*, 1999, Preface, paragraphs 13-21 and 24-26

⁵⁸³ IAPC of IFAC, *Exposure Draft: Assurance Engagements*, 1999, paragraph 30

⁵⁸⁴ IAPC of IFAC, *Exposure Draft: Assurance Engagements*, 1999, paragraphs 56-58

⁵⁸⁵ IAPC of IFAC, *Exposure Draft: Assurance Engagements*, 1999, Preface, paragraph 17

standards for and providing guidance to professional accountants for the performance of engagements intended to provide a high level of assurance.⁵⁸⁶

- (73) This Standard did define the term “assurance”, but only indirectly and in a manner that did not clarify the nature of assurance. The Standard stated “The expression “high level of assurance” refers to the professional accountant having obtained sufficient appropriate evidence to conclude that the subject matter conforms in all material respects with identified suitable criteria.” This was also linked to the reduction to a low level the risk of an inappropriate conclusion that the subject matter conforms in all material respects with identified suitable criteria. Moderate assurance, on the other hand, was defined as “referring to the professional accountant having obtained sufficient appropriate evidence to be satisfied that the subject matter is plausible in the circumstances”. This was linked to the reduction to a moderate level the risk of an inappropriate conclusion. That “plausibility in the circumstances” can only relate to the criteria applied was intimated by the assertion that the professional accountant designs the report to convey a moderate level of assurance regarding the conformity of the subject matter with identified suitable criteria.⁵⁸⁷
- (74) These definitions are not sufficiently comprehensive because:
- (i) they do not define what assurance is – only where it comes from;
 - (ii) the definition of “high assurance” does not tell us to what degree the professional accountant needs to be satisfied that the subject matter conforms in all material respects with the identified suitable criteria;
 - (iii) the definition of moderate assurance only indirectly acknowledges that the degree to which the professional accountant is satisfied with the subject matter’s conformity with the criteria determines that moderate assurance has been achieved.

Furthermore, engagement risk for high assurance engagements covers only the risk of incorrect acceptance, whereas engagement risk for moderate assurance engagements also covers the risk of incorrect rejection.

- (75) These problems inextricably led to the annexation to the Standard of a so-called “Report on the issue from exposure drafts of the International Standard on Assurance Engagements”, which described the two perspectives on assurance: the interaction of variables approach and the work effort approach. Under the interaction of variables approach, it is the interaction of subject matter, criteria, process and evidence that determine the level of assurance that will be achieved: hence a moderate assurance engagement may be carried out even if a high assurance engagement cannot be. Under the work

⁵⁸⁶ IFAC 2001, ISA 100.1

⁵⁸⁷ IFAC 2001, ISA 100.29 - .30

effort approach, the interaction of elements (variables) must be such that only the work effort determines the level of assurance: a moderate assurance engagement can only be carried out if a high level of assurance is possible. It is these diametrically opposed views that have led to the genesis of a major international research project by the IAPC (now the IAASB) and to the need for professional accountants (including the member bodies of FEE) to address the issues associated with assurance engagements.

APPENDIX II: SUBSEQUENT DEVELOPMENTS – THE IAASB RESEARCH PROJECT

1. RESEARCH PROJECT SCOPE AND CONCLUSIONS

- (1) On November 10, 2001 the International Symposium for Audit Research Group (consisting of academics from the University of Maastricht, the University of Southern California, the University of New South Wales and the University of Hannover) issued its Final Report entitled “The Determination and Communication of Levels of Assurance other than High” to the IAPC. This extensive study attempted to answer the question as to what are the determinants of assurance other than high and how to communicate such levels to users.
- (2) The study included a wide-ranging literature review that could provide insights into the questions posed above. The study concluded that there was relatively little literature in this area (this Paper comes to the same conclusion – see Chapter II Part E on auditing theory). Nevertheless, there appeared to be some evidence that there are factors other than work effort that help determine the level of assurance. Other than subject matter, none of the other elements of an assurance engagement had been empirically tested to see whether they might help determine the level of assurance. The literature review also concluded that communication theory might help provide some insights for a systematic and informed approach to developing means of communicating assurance.⁵⁸⁸
- (3) The study included a review of initiatives undertaken by professional associations. This review came to the conclusion that the audit risk model, which defines work effort as a major defining characteristic of the level of assurance obtained by audits and reviews of financial statements, may only provide limited guidance in identifying the determinants of assurance in engagements where the subject matter and criteria are not as clearly defined. In other words, the study points out that current auditing theory suggests that work effort is the primary determinant of assurance, as higher work effort reduces risk, which is the inverse of assurance, but that caution is needed in seeking to extend these general findings to other subject matter and criteria.⁵⁸⁹
- (4) This review also looked at the different approaches to the problem adopted in various countries, and in particular, in the US, the UK, Canada and Australia. The review noted that the research studies or structure of standards in those countries in which the work effort view is prescribed (the US and Canada) suggest a variables rather than a work effort approach. It was noted that generally in most countries the negative assurance approach was used to

⁵⁸⁸ IAASB of IFAC, 2002, Study 1, p. 27

⁵⁸⁹ IAASB of IFAC, 2002, Study 1, pp. 64-65

communicate assurance other than high because it was felt that the constituents understood this approach.⁵⁹⁰

- (5) The study also involved a moderate assurance questionnaire that was answered by the national accountancy bodies in 12 countries on these issues. This survey concluded that most countries do not have a national definition of moderate or high assurance and that most had adopted the IFAC definitions in ISA 100. One major country defined the level of assurance in terms of procedures performed. There also appeared to be no consensus among the countries on the factors affecting levels of assurance. Furthermore, the communication of different levels of assurance appeared to be understood better or worse in different countries. It should also be noted that the provision of different levels of assurance appears to be acceptable practice in all of the countries surveyed. Overall, it appeared that most countries' assurance standard setters wish to improve their guidance by means of adopting the ISA.⁵⁹¹
- (6) In addition to a survey of national institutes, a survey of the ten largest accounting firms in each of the 12 countries was undertaken. Of interest are the areas in which a moderate level of assurance is provided. The nature of the subject matter and the lack of appropriate criteria were cited as the prime reasons why a high level of assurance has not been provided. Other reasons included cost-benefit considerations and a lack of appropriate evidence. The mean average moderate level of assurance was given at 60 %, while the mean average percentage for high assurance was given at 88 %. The survey responses also seemed to support the assertion that subject matter, criteria, work effort and the quantity and quality of evidence all have an influence on the level of assurance. With respect to communication, it was shown that nearly half of the respondents used negative assurance to express moderate assurance. The firms surveyed believed that the difference between moderate and high levels of assurance are not well understood by clients, and even less so by third parties.⁵⁹²
- (7) The final conclusions of the report support the view that work effort, subject matter and criteria do affect the level of assurance that can be obtained. Furthermore, the researchers appear to support a continuum of suitability of criteria, rather than a dichotomy, in which criteria are either suitable or not for the performance of an assurance engagement. The researchers also espoused the view that, while the quantity and quality of evidence may vary, this variance is determined by the subject matter, the criteria and the work effort and therefore the quantity and quality of evidence does not appear to be a separate variable that independently affects the level of assurance that can

⁵⁹⁰ IAASB of IFAC, 2002, Study1, p. 67

⁵⁹¹ IAASB of IFAC, 2002, Study 1, pp. 87-88

⁵⁹² IAASB of IFAC, 2002, Study1, pp. 96-97

be provided. Other variables are considered, but are regarded primarily as practice considerations rather than theoretical model considerations. On the issue of communication, it was suggested that longer form reports and an increased differentiation of levels other than high from high level assurance ought to be undertaken.⁵⁹³

2. UNRESOLVED ISSUES IN THE RESEARCH PROJECT

- (8) The contents of the Report by the International Symposium for Audit Research Group are not without criticism. In particular, while the survey of the national institutes and the firms provides useful information about the current status of standard-setting and practice and of the current beliefs of standard-setters and practitioners, it may be argued that the report remains primarily “empirical-descriptive” rather than including a rigorous “theoretical-normative” component necessary to provide the support for the arguments made based on the empirical evidence. Furthermore, the report does not appear to present a logical basis for the conclusions based on the empirical evidence by developing assumptions that are empirically tested and then deductively determining an appropriate theoretical model therefrom.
- (9) Above all, the report does not appear to formulate the objectives of assurance engagements using accepted theoretical bases, such as economic theory and decision theory, nor does it apply measurement theory to help determine the theoretical basis for some of the assertions made with respect to the use of the elements in an engagement to determine the level of assurance.
- (10) An example of the lack of a theoretical basis is the basic assumption upon which the conclusions in the report are based, that audit assurance is the converse of audit risk (and that hence assurance for assurance engagements is the converse of engagement risk).
- (11) The Report also does not appear to address the problems that this subject has with nomenclature – that is, the semantics that appear to get in the way of a clear analysis of the relevant issues. For example, the report does not discuss the use of the terms high and moderate and the usefulness, and indeed, appropriateness, of using the terms “high” and “reasonable” interchangeably. This particular problem is related to the weakness in the Report that the effect of the legal environment on different views of assurance engagements was not investigated (i.e., does “reasonable assurance” mean the same thing in different legal frameworks and for different subject matter?).
- (12) Other issues related to nomenclature that cloud an analysis of the issue (i.e., the use of the terms “plausibility”, “audit”, “review”, etc.) were not addressed. Because the nomenclature issue was not addressed in general, there are

⁵⁹³ IAASB of IFAC, 2002, Study1, pp. 112-123

those that might argue that the Report as a whole was somewhat careless in its use of words (such as the use of the terms “qualitative” and “quantitative”, which appear to have been applied inappropriately on a number of occasions and consequently led to questionable conclusions).

- (13) For practitioners, it is not only important that the report concluded that the interaction of certain variables has an impact on the level of assurance that can be obtained, but also that an operational model of how this interaction takes place be developed. Without an operation model, the conclusions drawn are of little use for practitioners or standard setters because the conclusions alone would not aid them in their work – that is, to perform assurance engagements or set standards for these.
- (14) From a theoretical point of view, the general conclusion that the quantity and quality of evidence available does not independently help determine the level of assurance because they are determined by the subject matter, the criteria and the work effort appears intuitively false for those cases in which the quality of a control system helps determine the quantity and quality of evidence. This issue needs to be revisited.
- (15) The empirical-descriptive nature of the report also appears to lend credence to the belief that certain assertions made by survey participants were accepted without further analysis to determine whether these assertions can be regarded as being widely accepted or logically consistent. An example of this is the view expressed that high assurance may not be obtainable for assurance engagements on prospective information. This is a view that is held in a particular jurisdiction, but that is not necessarily shared by other jurisdictions. A logical justification for the acceptance of this assertion appears to be missing.
- (16) While a survey of both national institutes (and hence their standards relevant to the issues at hand) and the practitioners in firms was undertaken, there does not appear to be an analysis of the consistency of the responses by the firms with the assertions by the national institutes. In other words, the Report should have included an analysis of the possible effect of national standards on the responses of the firms and tried to neutralise their effect.
- (17) Overall, the Report made a monumental effort to bring the strands of this very broad issue together on an international basis by primarily empirical means, since there appeared to be a lack of appropriate academic literature on the issues at hand. The main weaknesses in the Report relate to the lack of the development of a firm theoretical foundation for the conclusions drawn. This Paper attempts to provide direct readers to the rudiments of such a foundation and the impact that these theoretical issues have on the issues identified, but necessarily builds on the empirical-descriptive work done in the Report.

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